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PHASE II REMEDIAL INVESTIGATION WORK PLAN

FORMER PLAINWELL, INC. MILL PROPERTY
PLAINWELL, MICHIGAN

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LIST OF ACRONYMS

AMSL	Above mean sea level
AST	Aboveground Storage Tank
bgs	Below Ground Surface
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CRA	Conestoga-Rovers & Associates
CSM	Conceptual Site Model
DRO	Diesel range organics
ERA	Ecological Risk Assessment
FS	Feasibility Study
FSP	Multi-Area Field Sampling Plan
GRO	Gasoline range organics
GSi	Groundwater Surface Water Interface
LFP	Low Flow Purging
MDEQ	Michigan Department of Environmental Quality
MS/MSDs	Matrix spike/ matrix spike duplicates
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
PAH	Polycyclic aromatic hydrocarbons
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethene
PID	Photoionization Detector
PPE	Personal Protective Equipment
ppm	Parts per million
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/ Quality Control
RI	Remedial Investigation
RRD	Redevelopment Division
SPLP	Synthetic Precipitation Leaching Procedure
SOW	Statement of Work
SVOC	Semi volatile organic compound
TAL	Target Analyte List
TCL	Target Compound List
TPH	Total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
U S EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VAS	Vertical Aquifer Sampling
VOC	Volatile Organic Compounds
WWTP	Waste Water Treatment Plant

1 0 INTRODUCTION

This Phase II Remedial Investigation (RI) Work Plan for the former Plainwell Inc Mill Property (Site) located at 200 Allegan Street, Plainwell, Michigan, has been prepared by Conestoga-Rovers & Associates (CRA) on behalf of Weyerhaeuser Company (Weyerhaeuser) for submittal to the United States Environmental Protection Agency (U S EPA) Region 5. The Phase II RI Work Plan is being submitted in accordance with Statement of Work (SOW) for the Remedial Investigation and Feasibility Study and the terms of the Consent Decree for the Design and Implementation of Certain Response Actions at Operable Unit #4 and the Plainwell, Inc Mill Property of the Allied Paper Inc /Portage Creek/Kalamazoo River Superfund Site (Consent Decree), which became effective February 22 2005. The Site location is presented on Figure 1 1.

As approved by the U S EPA on August 6 2008, the RI is being implemented in a phased approach. This Phase II RI Work Plan has been prepared to address the remaining RI field sampling and analysis activities, consisting of a soil and supplemental groundwater investigation which are required to complete the RI pursuant to the SOW to address the remaining data gaps. The aim of the Phase II RI is to confirm historical exceedances and perform soil and groundwater investigations where information is currently not available or reliable. As a result, this Phase II RI Work Plan forms part of a multi-volume work plan for the Site which includes three separate parts:

- RI/FS Work Plan
- The Phase I Groundwater and Coal Tunnel Assessment Work Plan
- This Phase II RI Work Plan

As identified in this document, further additions to the proposed Phase II RI Work Plan are expected. Inspections of various areas including the mill buildings need to be conducted before the RI is deemed complete. All additional investigations will be submitted to the U S EPA for approval once inspection activities have occurred and will be included as part of the Phase II RI.

1 1 REMEDIAL INVESTIGATION/FEASIBILITY STUDY OBJECTIVES

The overall objective of the RI/FS Work Plan is to provide a scope of work to identify and investigate any environmental concerns regarding prior use of the Site. As outlined in the SOW: *The purpose of the RI program is to provide the data necessary to evaluate current*

and potential risks to human health and ecological receptors As provided in the SOW the objectives of the RI/FS for the Site are as follows

- **To determine the nature and extent of the contamination to assess risk and support development and evaluation of remedial alternatives** – Collect the data necessary to adequately characterize the nature and extent of contamination at the Site, consistent with the requirements of the National Oil and Hazardous Substance Pollution Contingency Plan (March 8 1990) (NCP) and the Consent Decree
- **To evaluate potential risk** – Assess any current and potential risks to human health or the environment caused by the release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site
- **To develop and evaluate remedial alternatives** – Develop and evaluate alternatives, consistent with reasonably anticipated future land use(s) at the Site, for remedial action to prevent mitigate, control or eliminate risks posed by any release or threatened release of historical contaminants present at or from the Site

The specific objectives of the Phase II RI Work Plan investigation are to

- Perform a supplemental groundwater investigation, developed based on the results of the Phase I RI groundwater investigation to further evaluate the nature and extent of impacts to groundwater and their potential sources
- Further assess shallow site-specific hydrogeologic characteristics and interconnections with the Kalamazoo River
- Perform soil investigations in the former wastewater sludge and dewatering lagoon and aeration basin area, the area of the mill buildings, and the north central portion of the Site, and undeveloped land areas to adequately characterize the nature and extent of impacts to soil in the unsaturated zone that may have occurred due to historical operations at the Site

To facilitate the evaluation of the Site related information as part of the RI, the Site has been divided into three areas based on their locations and noted historical environmental impacts The three areas are the as follows

- Area 1 - Former wastewater sludge dewatering lagoons and aeration basin area
- Area 2 - Mill buildings area
- Area 3 - North central portion area

A layout of the Site showing the boundaries of the three areas is provided on Figure 1.2. As defined in the Consent Decree, *Mill Operation and Maintenance shall not include any operation and maintenance of any portion of the Mill Property if any located between the top of the banks of the Kalamazoo River and the middle of the Kalamazoo River stream bed. Any operation and maintenance of such river banks and adjacent stream bed sediments will be addressed as part of the remedial action to be developed by EPA for the Kalamazoo River Operable Unit* (United States District Court Western District of Michigan Southern Division, 2005). Therefore, the Site includes areas up to the top of the Kalamazoo River bank. Area associated with the Kalamazoo River (i.e. beyond the top of the riverbank and mill race) are not included in the scope of the RI/FS and are being addressed in a separate submittal as part of the river remedial activities.

2 0 BACKGROUND

The following subsections provide a brief overview of pertinent background information to support the scope of work for Phase II RI investigation activities outlined in this report. A complete summary of the Site history and background can be found in the Remedial Investigation/Feasibility Study Work Plan, Operable Unit No. 6 of the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site Plainwell Mill, Plainwell Michigan September 2006 prepared by RMT, Inc. on behalf of Weyerhaeuser.

2 1 HISTORICAL MILL OPERATIONS

The Site has been subject to many historical reports outlining historical operations including previous Phase I and Phase II Environmental Site Investigations which have been reviewed in previous reporting to the U.S. EPA. These documents are discussed below and are referenced to in Section 7.0.

The historical information indicates that various activities took place at the Site. The buildings and activities include support buildings, paper mill operations, on Site parking, wastewater treatment waste storage, containment of coal, containment of fuel oils, containment of hydraulic oils, and general manufacturing related activities. To aid in the manufacturing and treatment processes, Former Quality Products sludge Dewatering Building, and Specialty Mineral Inc. buildings, developed materials used to support operations. These operations were located on the south central portion of the Site in Area 3.

2 1 1 HISTORICAL OWNERSHIP AND OPERATIONS

Within Area 2, the papermaking operations began as early as 1884 and continued until Site closure in 2000. During this time period, ownership was passed between various organizations, including Weyerhaeuser who owned and operated the mill for approximately nine years (1961 to 1970). After bankruptcy was filed by the Simpson Plainwell Paper Company in 2000, the City of Plainwell purchased the property on August 31, 2006 with the objective of redeveloping the Site. A summary of previous owners is provided below.

Dates (approximate)	Property Ownership
(at least) 1884	Lyon Paper Mill
1891 to 1956	Michigan Paper Company
1956 to 1961	Hamilton Paper Company

Dates (approximate)	Property Ownership
1961 to 1970	Weyerhaeuser Company
1970 to 1985	Phillip Morris (operated the Nicolet Paper Company)
1985 to 1987	Chesapeake Corporation
1987 to 2000	Simpson Plainwell Paper Company
2006 to present	City of Plainwell

2 1 2 AERIAL PHOTOGRAPHS

Historical aerial photographs of the Site obtained between 1947 and 2005 and are presented in Appendix A. The aerial photographs were reviewed from this time period to identify the changes in land use and Site conditions over the period of photographic coverage with primary emphasis placed on changes in topography. The photographs indicate development of the Site over the time period reviewed which is consistent with historical reporting. The following is a summary of the photographs reviewed:

- The 1947 photograph of the Site is unclear. The majority of the property remains undeveloped and wooded.
- In the 1955, 1957 and 1965 photographs of the Site, the mill buildings complex, primary clarifier, wastewater dewatering lagoons and Plainwell wastewater treatment plant were identified. The majority of the property remained undeveloped and wooded.
- The 1967 photograph of the Site indicates the development of the secondary clarifier, aeration basin, and the railroad near the mill buildings.
- The 1973 and 1974 photographs indicate trees had been cleared and residential properties were developed to the southwest of the mill buildings.
- In the 1991 photograph of the Site, the addition of sludge dewatering facility to the northwest of the mill buildings is identified.
- The 1999 photograph indicates the presence of the Specialty Minerals Inc. building.
- The 2005 photograph of the Site is representative of current Site conditions.

The aerial photographs reviewed do not indicate that development has occurred within the wooded area located southwest of the lagoon areas. The aerial photographs of the undeveloped lands (southern parking lots and area beside mill race) do not indicate evidence that would suggest the potential for any historical environmental impacts.

Due to the limited quality of the aerial photos, Weyerhaeuser is in the process of obtaining and reviewing Sandborn Fire Insurance Maps for the Site. Once reviewed,

further sampling maybe proposed to the U S EPA for review and approval and included as part of the Phase II RI field activities

2 1 3 WASTEWATER TREATMENT

According to historical documentation prior to installation of the clarifier wastewater produced during papermaking processes was discharged directly into the Kalamazoo River, without any treatment Wastewater treatment commenced at the Site in 1954, and improved as wastewater treatment methods developed Between 1954 and 1967 wastewater treatment was carried out through a primary clarifier that was constructed northwest of the mill buildings and a number of wastewater sludge dewatering lagoons on the northwest portion of the Site, as presented on Figure 1 2 After treatment of wastewater in the primary clarifier, the clarifier effluent was discharged into Kalamazoo River and the clarifier underflow was discharged into the lagoons for further dewatering The dewatered sludge in each lagoon was excavated and transported off-Site to the 12 Street Landfill Site in Otsego Michigan (RMT 2006)

In 1967 wastewater treatment at the Site developed to include a 1 85 million gallon plastic lined aeration basin and a secondary clarifier, collectively referred to herein as the secondary clarifier located west of the lagoons, as presented on Figure 1 2 (RMT, 2006) The primary clarifier s effluent passed through an aeration basin prior to discharge to Kalamazoo River and biosludges from the aeration basins along with the primary clarifier underflow were discharged to the dewatering lagoons The dewatered sludge continued to be excavated and transported off-Site for disposal at the 12 Street Landfill Site (RMT 2006)

From 1981 until termination of operations at the Site in 2000 a new wastewater treatment facility, consisting of a new primary clarifier, a mechanical dewatering system a new secondary clarifier and an activated sludge treatment system was constructed The primary clarifier and wastewater sludge dewatering lagoons were replaced with the new primary clarifier and a mechanical dewatering system respectively The new secondary clarifier and an activated sludge treatment system were constructed over several of the eastern lagoons (i e , Lagoons D, E, and G) and the old primary clarifier was removed The removal of the dewatered sludge from the dewatering lagoons continued across the Site and between 1981 and 1983, most of the remainder of the residuals in the lagoons were removed and transported off-Site for disposal or consolidated in western lagoons and covered with soil (RMT, 2006) In 1983 the former aeration system was taken out of service and partially backfilled The general location of the new wastewater treatment system is shown on Figure 1 2

214 HAZARDOUS SUBSTANCES

Based on the existing Site information, several Comprehensive Environmental Response Compensation, and Liability Act (CERCLA) regulated hazardous substances were used, generated, and/or stored during the paper manufacturing operations

Coal and Fly Ash

Coal was used for steam generation for papermaking operations and according to the historical aerial photographs of the Site the north central portion of the Site (i.e., Area 3C) was used as coal storage area. Fly ash generated as a by-product of the combustion of coal in the boiler was mixed with wastewater sludge in the lagoons before off Site sludge disposal. The coal products may contain metals and polycyclic aromatic hydrocarbons (PAHs) at various concentrations, depending on its origin. The resulting fly ash contains organic compounds and metals as noted in historical sampling.

Additives for the Papermaking Process

Additives, such as support products from the Specialty Minerals Inc. were employed during the papermaking process, along with cleaning products and petroleum products. Several paper machine additives, felt and wire cleaning products containing volatile organic compounds (VOCs) and semi-volatile organic compound (SVOCs) were used during papermaking process at the Site. There were several on Site aboveground and underground storage tanks (ASTs/USTs) containing petroleum products such as No. 6 Fuel Oil, gasoline, diesel, and kerosene.

Wastewater Sludge

Wastewater sludge was created during the papermaking processes on Site. The sludge was removed from the facility and processed through a series of clarifiers before entering the former wastewater lagoons for dewatering. Once the paper sludge was dewatered, the material was then removed from the Site. In the late 1950s and early 1960s, paper that was deinked and recycled at the mill may have included carbonless copy paper containing polychlorinated biphenyls (PCBs). De-inking was discontinued at the mill in 1963. The U.S. EPA's Technical and Procedural Amendments to the Toxic Substances Control Act (TSCA) Regulations indicates that the potential for PCBs present within the wastewater sludge would not be regulated under the TSCA.

Electrical Equipment and Hydraulic Lubricants

Some fluids used in electrical equipment (e.g., transformers and capacitors), as well as hydraulic fluids, commonly contained PCBs. As documented in the previous reports for the Site, PCBs were historically used in transformers (seven removed) capacitors (41

removed), and in the hydraulic fluids of five elevators inside the mill buildings (fluids have been removed and disposed of)

2 1 5 WASTE STORAGE AND DISPOSAL

The potentially regulated waste generated at the Site included used oil spent solvents (prior to 1994) and wastewater sludge (RMT 2006) All known disposal activities have been discussed above and landfilling activities are not known to have occurred on-Site PCBs that may be present in the wastewater sludge on-Site as discussed in Section 2 1 4

3 0 CURRENT CONDITIONS AND HISTORICAL LAND USE

3 1 PHYSICAL SETTING

The Site is located in the southeast ¼ of the northeast ¼ Section 30 Town 1N Range 11W in the City of Plainwell Allegan County Michigan as presented on Figure 1 1 The property address is 200 Allegan Street, Plainwell, Michigan and is currently zoned industrial

To the north, the Kalamazoo River borders the Site As defined in the Consent Decree and discussed in Section 1 1 the Site is defined to the top of the river bank The Site is bordered by the Mill Race to the east Further east are the Plainwell central business units The Site is bordered to the south by Allegan Road and further south by residential properties The Site is bordered to the west by mixed residential and commercial property and the City of Plainwell wastewater treatment plant (WWTP)

In a study completed in 1996 the following buildings were noted to be present on-Site (RMT, 1996)

- The former mill buildings, located on the eastern side of the property (approximately 526 000 square feet of former production and office space)
- The Former Specialty Minerals Inc facility located near Allegan Street, which the Simpson Plainwell Paper Company formerly leased to Pfizer for the production of precipitated calcium carbonate to be used at the mill (approximately 45 000 square feet)
- The Former Quality Products property located near the central portion of the Site which included a 3,100 square feet former retail store and a 3 100 square feet metal storage building
- The former mill wastewater treatment building located on the western portion of the Site

The following is a summary of other structures located on-Site

- Two 50,000 gallons water towers
- One 200,000 gallon No 6 Fuel Oil AST and containment structures
- The former on Site WWTP structures including a primary clarifier, two secondary clarifiers and an activated sludge aeration tank

The Site buildings and structures are presented on Figure 1 2

3 1 1 SITE TOPOGRAPHY AND DRAINAGE

The Site topography is generally flat and gently sloping towards the north to the Kalamazoo River and to the east towards the Mill Race. Based on the United States Geological Survey (USGS) 7 5 minute topographic map for the area (Otsego Michigan, 7 5 minute quadrangle) and aerial topography for the Site, the range in surface elevation is from 720 to 730 feet above mean sea level (AMSL).

3 1 2 SITE GEOLOGY

Regional information for the area as noted in historical reporting indicates that unconsolidated glacial deposits extend to a depth of 150 feet below ground surface (bgs), where bedrock shale of the lower Mississippian age (Coldwater Formation) is present (RMT 2006).

Due to the proximity to the Kalamazoo River, unconsolidated sand and gravel is present at depths ranging from approximately 702 feet AMSL to an unknown depth. Various locations of the property have been excavated for use as wastewater lagoons or other holding areas, therefore the current Site conditions may vary.

Soil boring logs for the various investigative soil borings and monitoring wells installed at the Site are presented in Appendix B.

3 2 SOIL CHARACTERIZATION

A number of investigations have been conducted at the Site beginning as early as 1996. A summary of historical soil data from the previous investigations up to and including the Phase I RI soil sampling at the Site, is presented in Appendix C. Figures 3 1 to 3 3 present the associated sampling locations in Areas 1, 2, and 3, respectively. The data set has been screened against the Michigan Act 451 Part 201 Generic Cleanup Criteria as referenced by the Michigan Department of Environmental Quality (MDEQ) Remediation and Redevelopment Division (RRD) Operational Memorandum No 1 updated January 23, 2006 (Part 201 Criteria) for the following exposure pathways:

- Statewide Default Background (as applicable)
- Residential Drinking Water Protection
- Industrial and Commercial Drinking Water Protection
- Groundwater Surface Water Interface (GSI) Protection
- Soil Volatilization to Indoor Air Inhalation

- Direct Contact Industrial and Commercial II Levels

These screening criteria were selected to identify areas that require further investigation and to determine specific exposure pathways for screening of the historical data. The presented assessment in this Phase II RI Work Plan is not intended to be a final screening of the Site data (i.e., inclusion of the residential levels will be included as part of the RI report).

Table C 1 provides a summary of the screening criteria used and a statistical summary of the data that exceeds the Part 201 screening criteria. Tables C 2 through C 5 provide summaries of the available soil analytical data. The following subsections provide a discussion of the data. For the purposes of this discussion the data has been divided into pre RI soil investigations (i.e., 2007 and earlier) and the RI soil investigations (i.e., 2008 data).

3.2.1 PRE RI SOIL INVESTIGATION SITE CHARACTERIZATION

VOCs

Exceedances of the GSI criteria are noted at Sample #2 for 1,2,4-trimethylbenzene and o-xylene. An exceedance of the industrial and commercial drinking water criterion is noted at Sample #2 for benzene. A solitary exceedance of naphthalene is noted at SB 6 at a depth of 0 to 1 feet bgs of the GSI criteria. An exceedance of the residential industrial and commercial drinking water Levels is noted at SBA 3A for tetrachloroethene (PCE).

SVOCs and PAH

Exceedances of the GSI Levels are noted at sampling locations Sample #2 and Sample #3 for naphthalene and/or phenanthrene.

TPH

Sampling conducted for total petroleum hydrocarbons (TPH) occurred in June 1999 at location 93374, located in Area 3D. The only detected concentration was for TPH-Non-Polar Material-SGT HEM at a concentration of 0.264 mg/kg.

PCBs

Exceedances of the Direct Contact Industrial and Commercial II Levels for PCBs are noted at sample location SB-3 at sample depths of 2 to 2.5 feet bgs and 4 to 5 feet bgs. This sample was taken just south of the Former Fuel Oil Tank #6. Selected locations (TW3 and TW6) were chosen for Synthetic Precipitation Leaching Procedure (SPLP) testing for PCBs. No SPLP-PCBs were detected in any of the samples.

Metals

Exceedances of metals are noted at various locations as summarized below:

Sample ID	Location	Criteria	Parameter Exceedance
Lagoon J 3A	Area 1	Residential Industrial and Commercial Drinking Water	Arsenic
Lagoon M- 1B		Residential Industrial and Commercial Drinking Water	Arsenic
BK5 (2 5 3 ft)	Area 2	Residential Industrial and Commercial Drinking Water	Arsenic
BK5 (2 5 3 ft)		Statewide Background	Mercury
DG3 (0 1 5 ft)	Area 3	Residential Industrial and Commercial Drinking Water	Arsenic
		Statewide Background	Mercury
DG4 (0-1 5 ft)		Residential Industrial and Commercial Drinking Water	Arsenic
		Statewide Background	Total Chromium Lead Mercury
SB-1 (12 5 13 ft)	Area 3D	Statewide Background	Total Chromium
		Residential Industrial and Commercial Drinking Water	Arsenic
SB 3 (2 2 5 ft)		Statewide Background	Mercury
		Residential Industrial and Commercial Drinking Water	Arsenic
SB-4 (9 10 ft)		Statewide and GSI	Total Chromium
		Statewide and GSI	Selenium
SB-5 (2 5 3 5 ft)		Statewide Background	Mercury
		Residential Industrial and Commercial Drinking Water	Arsenic
SB 7 (0 0 5 ft)		Statewide Background	Mercury
SB 7 (7 7 5 ft)		Statewide Background	Total Chromium
SB 2 (9 10 ft)		All Criteria	Mercury
		Statewide and GSI	Selenium

3D Former Fuel Oil Tank Area

3 2 2 PHASE I RI SOIL CHARACTERIZATION

In 2008 soil sampling was conducted during the completion of the assessment of the former Coal Storage Tunnel and completion of Phase I RI activities. The RI soil sampling to date focused on test pitting in Area 2 to determine if any conveyances exist from the mill buildings to the Kalamazoo River and assessment of the former Coal Storage Tunnel. The following is a summary of the analytical data generated from the 2008 RI activities in comparison to the selected Part 201 Criteria.

VOCs

Sampling for VOCs was conducted at select test pitting locations. No exceedances of the screening criteria were noted.

SVOCs and PAH

Sampling for SVOCs was conducted at CTP-4 and the test pits located along the soil lines towards the former Coal Storage Tunnel and the Kalamazoo River respectively. Exceedances of the Direct Contact Industrial and Commercial II criterion are noted for benzo(a)pyrene at CTP-4. Exceedances of the GSI criteria are noted for fluoranthene and phenanthrene at TP-18 and CPT-4 respectively.

TPH

Sampling for TPH compounds was conducted at selected test pitting locations. The analytical results generated indicated elevated TPH compounds of extractable diesel range organics (DRO) at all sampled locations. Further detections of purgeable gasoline range organics (GRO) are also noted.

PCBs

Sampling for PCBs was conducted along the soil lines to the former Coal Storage Tunnel and in various test pitting locations. No PCBs exceeded any of the selected Part 201 Criteria.

Metals

In November and December 2008 metals sampling was conducted at various test pitting locations and around the lines connecting to the former Coal Storage Tunnel. A summary of the exceedances are presented below.

Sample ID	Location	Criteria	Parameter Exceedance
TP 5 (6 ft bgs)		Residential Industrial and Commercial Drinking Water GSI Criteria	Total Chromium
		GSI	Mercury Selenium
		Residential Industrial and	Arsenic

Sample ID	Location	Criteria	Parameter Exceedance
TP 17 (7 ft bgs)	Area 2	Commercial Drinking Water	
		GSI	Mercury Selenium
TP 18 (8 ft bgs)		Residential Industrial and Commercial Drinking Water	Arsenic cadmium total chromium
		GSI	Mercury Selenium
TP 19 (8 ft bgs)		Residential Industrial and Commercial Drinking Water	Arsenic
		GSI	Mercury Selenium
TP 20 (6 ft bgs)	Area 2	Residential Industrial and Commercial Drinking Water	Arsenic
		GSI	Mercury
TP 20 (8 5 ft bgs)		Residential Industrial and Commercial Drinking Water	Arsenic
		Residential Industrial and Commercial Drinking Water GSI	Mercury
		GSI	Selenium
CPT 4		Area 3	Residential Industrial and Commercial Drinking Water
	GSI Criteria		Selenium

3.3 GROUNDWATER CHARACTERIZATION

A number of investigations have been conducted at the Site beginning as early as 1996. A summary of historical groundwater data from the previous investigations up to and including the Phase I RI groundwater sampling at the Site, are presented in Appendix D. The data set has been screened against the Part 201 Criteria for the following exposure pathways:

- Residential and Commercial I Drinking Water
- Industrial and Commercial II, III, IV Drinking Water
- GSI
- Groundwater Contact

Table D.1 provides a summary of the groundwater screening criteria used and a statistical summary of the data that exceeds the Part 201 screening criteria. Tables D.2 through D.5 provide a summary of the available groundwater analytical data. The following subsections provide a discussion of the data. Similar to the soil data, the groundwater discussion has been divided into pre-RI soil investigations (i.e., 2007 and earlier) and the RI soil investigations (i.e., 2008 data).

3 3 1 PRE RI GROUNDWATER INVESTIGATION SITE CHARACTERIZATION

VOCs

No VOCs were detected in groundwater analyzed at the Site above the laboratory method detection limit, or if detected were below the applicable Part 201 generic industrial commercial drinking water criteria groundwater contact criteria and/or GSI criteria

SVOCs and PAHs

No PAHs were detected in groundwater analyzed at the Site above the laboratory method detection limit or if detected were below the applicable Part 201 generic industrial-commercial drinking water criteria groundwater contact criteria and/or GSI criteria

PCBs

No PCBs were detected in groundwater analyzed at the Site above the laboratory method detection limit

Metals

Exceedances of metals are noted above the applicable Part 201 generic groundwater industrial-commercial drinking water criteria, groundwater contact criteria and/or groundwater GSI criteria for arsenic, cadmium, chromium total lead, and mercury. Given the limited groundwater data availability from historical sampling activities, it is difficult to develop a constructive characterization of the Site groundwater based on this data set. However, several of the metals parameters observed in the Site groundwater samples are naturally occurring and may be related to background.

Arsenic was observed in one temporary well within Area 1 (i.e., Lagoon L) above the applicable Part 201 generic groundwater industrial commercial drinking water criteria. Cadmium was observed at a temporary well in Area 2 above the applicable Part 201 generic groundwater industrial-commercial drinking water criteria. Chromium (total) was observed at temporary wells and the monitoring wells in Area 3 and Area 3D in exceedance of the applicable Part 201 generic groundwater GSI criteria. Lead was observed at two temporary wells at Area 2 above the applicable Part 201 generic groundwater criteria industrial commercial drinking water criteria. Mercury was observed at one temporary well in Area 2 in exceedance of the applicable Part 201 generic groundwater GSI criteria.

3 3 2 PHASE I RI GROUNDWATER CHARACTERIZATION

A preliminary groundwater investigation was conducted between December 8, 2008 and December 18, 2008 in accordance with the approved Phase I Plainwell Mill RI/FS Work Plan. Twelve monitoring wells were installed at locations shown on Figure 3.1 to 3.3 for their respective areas, and groundwater samples were collected for the analysis of Target Compound List (TCL) VOCs, TCL SVOCs, PCBs, Target Analyte List (TAL) metals, and cyanide.

The generated groundwater analytical data are presented in Appendix D in Tables D.1 to D.5.

VOCs

With the exception of acetone and chloromethane, no VOCs were detected above the laboratory method detection limit. Acetone and chloromethane were detected at monitoring locations MW-3 in Area 2 and MW-12 in Area 1, respectively, at concentrations below applicable Part 201 generic residential and industrial-commercial drinking water criteria, groundwater GSI criteria, and groundwater direct contact criteria.

SVOCs

With the exception of bis(2-ethylhexyl)phthalate and benzoic acid, no SVOCs were detected above the laboratory method detection limit. Bis(2-ethylhexyl)phthalate was detected at one monitoring well (i.e., MW-12) in Area 1, and benzoic acid was detected in groundwater at all monitoring locations at concentrations below applicable Part 201 generic groundwater criteria, residential and industrial-commercial drinking water criteria, groundwater GSI criteria, and groundwater direct contact criteria.

PCBs

PCBs were not detected in any of the groundwater samples collected.

Metals and Cyanide

Several metals, including aluminum, arsenic, cyanide, iron, lead, manganese, and mercury, were detected in Site groundwater samples at concentrations exceeding the generic Part 201 Criteria. The RI groundwater characterization is not complete at this time, and further sampling, both of existing monitoring wells and of additional well locations, is necessary to complete the Site groundwater characterization model. It should be noted that the majority of metals parameters detected in Site groundwater during the RI sampling are naturally occurring. The presence of these parameters in Site groundwater may be related to background and not due to Site-related activities.

Aluminum was observed at MW-3 in Area 2 above the applicable Part 201 generic groundwater criteria industrial commercial drinking water criteria Arsenic was observed at monitoring locations MW 7 in Area 3 and MW 12 in Area 1 above the applicable Part 201 generic groundwater criteria industrial-commercial drinking water criteria Iron was observed at monitoring locations MW 3 in Area 2, MW-11 in Area 1 and MW 12 in Area 1 above the applicable Part 201 generic groundwater criteria Industrial Commercial drinking water criteria With the exception of two monitoring locations (i.e. MW-1 and MW 6), manganese was in exceedance at all monitoring locations across the Site Mercury was observed at monitoring locations MW-2 MW-3, MW-4, MW-5, in Area 2, and MW-7 in Area 3 at concentrations in exceedance of the applicable Part 201 generic groundwater GSI criteria Cyanide was observed at monitoring wells MW-5 in Area 2 MW-7 in Area 3 MW-10, MW 11, and MW 12 in Area 1 at concentrations above the GSI criteria

3.4 LOCATION AND CHARACTER OF POTENTIAL SOURCES

The pre RI and RI data collected to date suggest that the potential source of impacts are localized within the three areas at the Site and are associated with historical land uses

Area 1 - Former Lagoon and Wastewater Treatment Area

Historical land uses of this area included the treatment and dewatering of wastewater sludge prior to off-Site disposal The area includes fourteen former wastewater sludge dewatering lagoons (i.e., Lagoons A through L) primary clarifier, former secondary clarifier, former wastewater treatment building activated sludge tank, former aeration basin secondary clarifier, and activated sludge treatment system

With the exception of the detection of arsenic in Lagoon M and Lagoon J within the historical soil sampling, no exceedances of the Part 201 Criteria were noted at other locations investigated at this area

Groundwater analytical results indicate that groundwater in this area of the Site contains metals and cyanide at levels above Part 201 Criteria, however further evaluation relative to background levels is required

Area 2 - Plainwell Mill Building

This area includes the former primary clarifier mill buildings, and two water towers The primary clarifier was constructed northwest of the mill buildings and treated wastewater from the mill buildings Prior to 1967, the effluent of the clarifier discharged to the Kalamazoo River and the underflow discharged to the dewatering lagoons By introduction of secondary clarifier and aeration basin in 1967 the effluent of former

primary clarifier was processed through the aeration basin and then into the secondary clarifier before being discharged to the Kalamazoo River. The underflow of both the former primary and secondary clarifier was discharged into the dewatering lagoons. Suspected areas relating to historical operations within the mill buildings are also considered as potential source areas.

Soil characterization data indicates exceedances around the former transformer area. Limited sampling has been conducted on the south and east side of the buildings. Limited groundwater data has been collected from this area. There is no groundwater data available for the southeastern portion of the Site.

Area 3 – Central Portion of the Site

This area included the former Quality Products building (Area 3A), the Specialty Mineral Inc. building (Area 3B), the former coal pile storage (Area 3C), the 200,000-gallon No. 6 fuel oil AST (Area 3D), former Coal Storage Tunnel (Area 3E) and the remainder of the areas located in central portion of the Site (Area 3).

There was no historical sampling conducted or information available for the former Quality Products building and the Specialty Mineral building. Further investigations need to be completed in these two areas to determine any potential sources of impacts.

Historical sampling of the former Coal Storage Tunnel and the No. 6 fuel oil AST indicate both areas are potential sources of impact. As noted, soil analytical data has indicated exceedances of metals at both locations and SVOCs within the area surrounding the AST. Limited groundwater analytical data were available.

3.5 EXPOSURE PATHWAYS ANALYSIS

The potential human and ecological receptors that may be exposed to Site impacts depend strongly upon the current and anticipated Site land use. The Site is currently closed and fenced to pedestrian and vehicular traffic. The planned future use of the Site involves mixed commercial/residential/recreational land use.

Based on the current and anticipated future use of the Site, potential exposure pathways for human and ecological receptors to Site impacts are identified below. Sections 3.5.1 and 3.5.2 present the human and ecological exposure pathways analyses, respectively.

3 5 1 HUMAN HEALTH CONCEPTUAL SITE MODEL

In order to evaluate the significance of the impacted media at the Site, the potential pathways by which individuals may come in contact with these media must be determined. The combination of factors (chemical source, media of concern, release mechanisms, and potential receptors) that could produce a complete exposure pathway and lead to human uptake of chemicals at the Site are assessed in what is defined as a Conceptual Site Model (CSM). The human health CSM identifies all potentially complete exposure pathways at the Site, and is summarized on Figure 3 4.

As the nature and extent of the contamination at the Site has not been fully defined, the CSM was developed based on the assumption that impacts, both volatile and non-volatile, could exist in both soil and groundwater. Air is also considered a potentially impacted medium based on the potential for vapor and particulate release into ambient air and indoor air. Note that surface water and sediment are not present on-Site, and off-Site surface water and sediment in the Kalamazoo River and Mill Race are being evaluated under a separate report. Thus surface water and sediment are not considered herein, as indicated in Figure 3 4.

The Site is currently closed and fenced, thus the only potential current receptor is a trespasser. The projected land use of the Site is mixed commercial/residential/recreational use; thus the potential future receptors include a construction/utility worker, commercial worker, resident, and recreational visitor. A trespasser is also included as an additional potential future receptor since, depending on the development of commercial areas at the Site, a future trespasser may also need to be evaluated in these areas. The trespasser would be an adolescent that occasionally gains access to the Site via trespassing. The construction/utility worker would be an adult conducting excavations potentially extending to the water table, such as would occur during the installation/maintenance of subsurface utilities. The commercial worker would be an adult working primarily indoors (and possibly a limited amount outdoors) at the Site. The resident is considered a child from 0 to 6 years old, and subsequently an adult, and is assumed to occupy a residential building on the Site. The recreational visitor is considered a child from 0 to 6 years old, and subsequently an adult, and is assumed to visit the recreational areas developed at the Site.

The projected land use for the Site (i.e., mixed commercial/ residential/ recreational use in an urban setting) is compatible with deed restrictions limiting groundwater use. Although it is highly likely these restrictions will be sought for the property, this

pathway will be quantitatively evaluated and is included in the CSM for the resident potential future receptor pathway

The CSM shown on Figure 3.4 presents a summary of the potential exposure media, exposure pathways, exposure routes, and exposed receptors at the Site. The following media and potential human exposures (i.e., complete pathways) have been identified for the Site:

1. Current Condition

- Dermal contact with surface soil by trespassers; Incidental ingestion of surface soil by trespassers
- Inhalation of airborne particulate and ambient air vapors originating from surface soil by trespassers
- Inhalation of ambient air vapors originating from groundwater by trespassers

2. Future Condition

- Dermal contact with soil by construction/utility workers, commercial workers, residents, recreational visitors, and trespassers
- Incidental ingestion of soil by construction/utility workers, commercial workers, residents, recreational visitors, and trespassers
- Inhalation of airborne particulate and ambient air vapors originating from soil by construction/utility workers, commercial workers, residents, recreational visitors, and trespassers
- Ingestion of, dermal contact with, and inhalation of vapors from groundwater by residents using groundwater for potable use
- Inhalation of ambient air vapors originating from groundwater by construction/utility workers, commercial workers, residents, recreational visitors, and trespassers
- Inhalation of indoor air vapors originating from soil and groundwater by commercial workers and residents
- Dermal contact with groundwater by construction/utility workers
- Inhalation of airborne vapors originating from pooled groundwater within an excavated trench by construction/utility workers

Note that it is assumed that during Site redevelopment, subsurface soil could be brought to the surface; thus, no distinction is made between surface and subsurface soil under future conditions.

3 5 2 CONCEPTUAL SITE MODEL (CSM) FOR THE ECOLOGICAL RISK ASSESSMENT

For risk to occur, ecological receptors must be exposed or have complete exposure pathways to Site related chemicals at concentrations above thresholds that cause impacts. The description of complete exposure pathways from contaminated media to ecological receptor, is called a Conceptual Site Model (CSM). Development of a CSM is critical to planning the Ecological Risk Assessment (ERA). The CSM helps determine which chemicals in which media could potentially be impacting biota. The CSM also identifies which biota and biological communities could potentially be impacted and by describing the specific exposure pathways how these biota are exposed to the Site related chemicals. Based on the results of previous sampling and review of the Site's ecological setting today and likely in the future, potentially complete exposure pathways between Site-related contaminants and ecological receptors were identified. The resulting CSM for the ERA is depicted in Figure 3 5.

Currently complete exposure pathways are assumed to exist from chemicals in surface soils to ecological receptors (Figure 3 5). In general, ecological risk assessments focus on soil contaminants in the top 1 foot or less. Guidance from British Columbia and Texas both recommend the top 6 inches of soil should be sampled to assess impacts to plants and soil invertebrates and their predators/herbivores (BC 2001, TNRCC 2001). Suter (2007) recommends the top foot for ecological risk assessment. Soil samples of the top 1 foot are being evaluated for the human health risk assessment, so the ERA will use these samples as the basis for assessing ecological risks of soil related contaminants.

Note that two Site specific factors could disrupt the exposure pathways from chemicals in surface soils to ecological receptors: impermeable surfaces and lack of habitat. Much of the Site is currently paved or under buildings and, based on current plans, will likely remain so into the future. Exposure pathways to surface soils in these areas are currently incomplete and likely to be incomplete in the future. Other nearby areas are not covered with paving or buildings, but these areas are highly disturbed or managed vegetation (e.g., lawns and ornamental plantings) that have little habitat value. Given this disturbance, exposure pathways from surface soil to biota may also be functionally incomplete (EPA 1997). At the same time, future land use at the Site is currently somewhat uncertain. Therefore, to be conservative, exposure pathways between ecological receptors and surface soils will be considered complete, as shown in the CSM, until plans for future development solidify.

Exposure pathways from chemicals in soil horizons deeper than 1 foot bgs are considered functionally incomplete (Figure 3 5). Although some vertebrates burrow

deeper than 1 foot into the ground (e.g. see discussions in Ohio EPA (2003) and California DTSC (1998)), their exposure to contaminants in deep soils is primarily due to incidental soil ingestion from grooming and inhalation. These are generally very minor exposure pathways¹ compared to exposure via chemicals in the diet (Beyer et al. 1994).

As described in Section 3.5.1, no surface water or surface sediments occur on the Site. Off-Site surface water and sediment in Kalamazoo River and Mill Race could have been impacted by releases from the Site, but these are being evaluated with a separate report. Thus, no surface water and sediment data are available for this ERA, and these media will not be considered in the ERA.

However, the RI will collect data on groundwater, and the potential ecological risks of current groundwater inputs to the Kalamazoo River and Mill Race will be considered. Although ecological receptors are not generally directly exposed to undiluted groundwater, aquatic organisms will be exposed to groundwater once it discharges to nearby surface waters. Thus, complete exposure pathways currently exist from groundwater to various aquatic biota. Moreover, if the chemicals bioaccumulate readily, semi-aquatic predators of the aquatic biota could be secondarily exposed via the food chain (Figure 3.5). These exposure pathways will be considered in the ERA.

3.5.2.1 CURRENT AND POTENTIAL RECEPTORS TO BE EVALUATED

Based on guidance (e.g. EPA 1997) and the ERA CSM presented above, the following assessment endpoints and exposure pathways are appropriate. When appropriate, the sentinel species are listed. Assuming that sufficient terrestrial habitat exists currently and in the future, the following assessment endpoints will be considered for species potentially exposed, directly or via the food chain, to chemicals in soil:

- Health of vermivorous wildlife (shrew and robin) foraging at the site
- Health of terrestrial herbivores (meadow vole and mourning dove) resident to the Site
- Health of top carnivores (red fox and red-tailed hawk) foraging at the Site

¹ Incidental soil ingestion can be a significant source of exposure for worm-eating species (Beyer et al. 1994). However, in this case, the incidentally consumed soil is primarily from the soil in the worms themselves. Soil-eating worms are found primarily in surficial soils, so the soil in these worms, which is incidentally ingested by worm eaters, is primarily surface soil, not deep soil.

In addition, the following assessment endpoints will be considered when considering the potential risks of groundwater

- Health of benthic organisms inhabiting off-Site open waters
- Health of water column species inhabiting off-Site open waters

If groundwater has ecologically significant concentrations of bioaccumulative compounds (e.g. mercury and PCBs) the following assessment endpoint will consider potential toxic effects further up the aquatic food chain

- Health of semi-aquatic predators (great blue heron and mink) feeding on biota from on-Site surface water

4 0 POTENTIAL DATA GAPS

4 1 FORMER WASTEWATER SLUDGE DEWATERING LAGOON AND AERATION BASIN AREA (AREA 1)

Although many samples have been taken in this area, the focus has been on locating the paper sludge waste within the lagoons rather than delineating the extent of the buried residuals and any potential areas of contamination. Although the amount of residuals appears to be minimal, the full extent of buried paper residuals is unknown. Review of the available soil borings from the lagoons indicates the variability of the currently detected layers of ash and debris found in these areas. This is due in part to information only collected from one location with the estimated lagoon within boundaries rather than from the estimated boundaries of the lagoon areas. Further sampling to determine the limits of paper sludge and potential impacts located in the former Lagoon Areas is needed. Impacts around the former aeration basin are unknown as no historical sampling has been conducted in this area. These in conjunction with the areas adjacent to the lagoons need to be investigated to identify potential impacts associated with any historical increases and decreases of the size of the lagoon areas.

After a review of the aerial photos and historical reporting, the large wooded area located to the southwest of the lagoon area has not been developed over time and no historical sampling has occurred within this area.

Minimal groundwater analytical data have been collected for this area. Temporary monitoring wells were installed in Lagoon L located on the northern side of the lagoon area. In 2008 three monitoring wells, MW-10, MW-11 and MW-12 were installed to determine the groundwater chemistry along the river system. Only one sampling event has occurred at these locations where detections were noted, therefore, in order to confirm any detection, further sampling should be conducted. No analytical data was available to characterize the groundwater located within the lagoon areas. Groundwater sampling of the potential contaminants within the residual layer would allow for comparison to boundary groundwater wells and confirm the overburden hydraulic conditions of the Site.

Further, no investigations have been conducted within the intermediate and deep groundwater flow systems. Further characterization of the intermediate and deep groundwater flow systems need to be conducted to confirm no impacts exist.

4 2 MILL BUILDING AREA (AREA 2)

Until 2008 minimal sampling had been conducted in this area. In review of the historical information, no sampling has been conducted within the mill buildings. Further inspection of the mill buildings would be required to determine any potential sources of contamination.

Test pitting was completed in 2008 along the northern area of the mill buildings adjacent to the Kalamazoo River. These activities were conducted to provide further information about the potential contaminant transport pathways from the papermaking processes.

Confirmation sampling will determine the extent of contaminants surrounding the old transformer pad. An inspection of the outflow pipes and perimeter of the buildings would allow for surface sampling of any potentially impacted areas and confirmation that all outflow pipes have been capped.

No studies have been completed on the South Parking Lot. An inspection and analysis of soil and groundwater conditions would allow for a better understanding of this portion of the Site.

Further, no investigations have been conducted within the intermediate and deep groundwater flow systems. Further characterization of the intermediate and deep groundwater flow systems should be conducted to confirm no impacts exist. Both groundwater and soil sampling should be conducted along the Mill Race and areas of undeveloped land (i.e., parking lots) to confirm the presence of fill below the paved areas and allow for a better understanding of the hydrogeologic connection between the Mill Race and the Kalamazoo River. Investigations will include inspection of any potential conveyances from the mill buildings to the former wastewater treatment areas (i.e., primary and secondary clarifiers) to determine pathways in which wastewater was transported to these areas.

4 3 NORTH CENTRAL PORTION OF THE SITE (AREA 3)

Previous soil and groundwater investigations have been conducted in this portion of the Site. Exceedances within the soil were noted in the northern part of Area 3 near the Kalamazoo River banks. Groundwater exceedances were noted along the southern property boundary. Therefore, confirmation sampling of the soil exceedances is needed to confirm the extent of contaminants along the bank area.

As SGWB-10 no longer exists, reinstallation of this well to confirm groundwater impacts is necessary. As SGWB 3 is sufficiently close to existing monitoring well MW-8, the water quality data at MW 8 is sufficient for the purposes of this work plan.

Minimal sampling has been conducted within the undeveloped areas located with the parking lots; therefore, further sampling is required.

4.3.1 FORMER QUALITY PRODUCTS AND SLUDGE DEWATERING BUILDING (AREA 3A)

There was little to no information available for the Former Quality Products and Sludge Dewatering Buildings on-Site. This provides a data gap for the analysis of this portion of the Site. Further inspections are needed in order to determine impacts, if any associated with the historical operation of these buildings.

4.3.2 FORMER SPECIALTY MINERALS INC (AREA 3B)

There is little known about the Former Specialty Minerals Inc. buildings on Site and the historical manufacturing process. In order to determine any impacts associated with the historical operations or any potential need for remediation, further inspections are required.

4.3.3 FORMER COAL PILE STORAGE (AREA 3C)

The former coal pile storage area is located on the north central portion of Area 3. This area has historically been used for the storage of coal prior to use. Previous soil investigations have confirmed the presence of coal and fill below ground surface. No historical or current investigations have determined the depth of coal within this area that would require off-Site removal. One temporary groundwater monitoring well was installed in this area near the railroad tracks. No impacts were noted at this location. Further investigations to determine the extent of residual coal need to be conducted.

4.3.4 NO. 6 FUEL TANK AREA (AREA 3D)

Many previous soil investigations have been conducted within Area 3D to determine the impacts associated with the fuel tank. In 1999, approximately 2 feet of soil was removed in a 40 square foot area. Sampling was conducted at five different locations to confirm

all impacted material was removed. Confirmatory sampling indicated further exceedances of VOCs and SVOCs.

Groundwater sampling was conducted in 1997. One groundwater sample indicated exceedances on the northern side of the fuel oil tank; however, this temporary well was removed. Further investigations will need to be conducted to determine the extent of residual impacts within the soil and groundwater due to the limited historical data. Confirmation of the soil excavation cleanup will also need to be determined.

4.3.5 FORMER COAL STORAGE TUNNEL (AREA 3E)

The former Coal Storage Tunnel was investigated in 2008 and summarized in the report submitted by RMT to the U.S. EPA on February 5, 2009. Investigations included determination if liquids had migrated to the groundwater, hand excavation to determine the length of the tunnel and any associated piping, and a physical assessment of the interior of the tunnel including clearing the ground surface on-top to determine additional access points. The report concluded that the coal tunnel was structurally sound and no major cracks were identified in the concrete. A heavy fuel oil with a layer of water was identified within the tunnel. Sampling conducted determined there were no PCBs present. For the purpose of the Phase II RI, this information is sufficient to determine this area as a area of impact; therefore, no further RI sampling will be conducted at this time. A further assessment of the soils surrounding the former Coal Storage Tunnel is required to determine the potential impacts outside the tunnel.

4.3.6 BACKGROUND INFORMATION

After review of all historical reports, limited background soil and groundwater data is available for the Site. The intention of the Phase II RI is to confirm historical exceedances and perform soil and groundwater investigations at various locations where data gaps were determined. At this point in the investigation, characterization of background soil quality is not necessary. Groundwater monitoring wells located along the southern boundary of the Site (i.e., Allegan Street) are considered to be representative of the groundwater concentrations migrating onto the Site. After completion of the proposed activities, the need for further collection of background data will be assessed and subsequently proposed to the U.S. EPA for approval.

5 0 PHASE II REMEDIAL INVESTIGATION

The following subsections outline the approach and scope of the Phase II RI sampling and analysis activities. The Phase II RI approach has been subdivided into three areas consistent with the areas discussed in Section 2.1. A tabular description of the proposed sampling and analysis activities is presented in Tables 5.1 through 5.4. These tables are provided as a reference and should be used in conjunction with the following sections. Figure 5.1 presents an overall Site wide summary of the proposed Phase II RI sampling locations. Figures 5.2 through 5.5 identify the proposed sampling locations in more detail for each of the three areas.

5 1 SAMPLING PROGRAM

For the purposes of the Phase II RI, as noted in Table 5.4, sampling protocols are outlined in the FSP and QAPP. The following field activities will be conducted to complete the Phase II RI.

Field Activity	FSP Reference
Soil sampling with Direct Push Sampler	SOP F 5
Surficial Soil Sampling	SOP F 6
Excavation and Test Pits and Test Pit Soil Sampling	SOP F 8
Photoionization Detector (PID) Screening	SOP F 9
Monitoring Well Installation	SOP F 15
Groundwater Sampling	SOP F 11
Surface Water Sampling	SOP F 16
Staff Gauge Measurement	SOP F 10
Vertical Aquifer Sampling	SOP F 17
Sample Handling and Analysis/ Quality Assurance	Section 4
Sample Labeling	Section 3.1
Chain of Custody Records	Section 3.3
Management of Investigation derived Waste	Section 6.0
Field Physical Measurements/ Surveying	Section 5.0/Section 5.1
Hand Auguring	SOP F 6

Details on the sampling methodology are provided in the FSP and are therefore not included in this work plan.

5 1 1 SOIL SAMPLING PROGRAM

Soil samples will be collected on a continuous basis (2 foot intervals) as defined in the FSP for the boreholes. Test pits will be 5 to 10 feet in length and will be completed as defined in the FSP. Field screening of soil samples will consist of photoionization detector (PID) readings to determine the presence of undifferentiated volatile organic vapors, visual screening for lithologic changes, stained soils and residuals, and olfactory evidence of impacts. Field observations will be noted in the field notes obtained for the Site. Further details pertaining to soil collection and logging of soil stratigraphy are presented in the FSP.

Surficial soil samples will be collected to determine the quality of surficial soils across the Site. Samples will be collected from 0 to 1 foot bgs. If non soil materials are present (i.e., gravel fill or concrete slabs) the soil sample will be collected from 0 to 1 foot below the non soil material.

To ensure that soil samples collected for VOCs are preserved prior to selection of samples for laboratory analysis the following process will be completed:

- The 0 to 1 foot soil sample interval (surface sample collected as noted above) will be preserved.
- Sample intervals below the 0 to 1 foot interval will be preserved if the material is non native and the PID reads are greater than 5 parts per million (ppm). For example, all samples of the fill material will be collected if there is field evidence of VOC impact (i.e., PID, visual, olfactory, etc.).
- The first sample below the interface of non-native/native material will be preserved.
- The non native material samples will not be preserved unless there is field evidence of impacts (i.e., PID, visual, olfactory, etc.).

To aid in the screening of soil quality across the Site, the following sampling programs have been selected for the completion of the RI as described in Table 5.4.

Sampling Program 1 is as follows:

- One surficial soil sample will be collected as indicated in Tables 5.1 to 5.3. One biased soil sample will be collected from what has been deemed fill material from a depth of 2 to 10 feet bgs based on field screening. If no impacts are noted one soil sample will be collected from 0 to 2 feet above the interface between the fill and native material within the vadose zone.

- One soil sample from 0 to 2 feet below the observed impact will be collected. If no impact is observed the soil sample will be collected from 0 to 2 feet below the interface of the fill/ native material within the vadose zone
- One soil sample will be collected from the vadose zone 0 to 2 feet above the saturated zone

Sampling Program 2 is as follows

- One surficial soil sample will be collected as indicated in Tables 5.1 to 5.3
- If no impact noted a discrete soil sample will be collected from 0 to 2 feet above the interface of the vadose and saturated zone. If impact noted one soil sample will be collected within 2 to 10 feet bgs and a third sample collected from 0 to 2 feet above the interface of vadose and saturated zone

Sampling Program 3 is as follows

- One surficial soil sample will be collected
- One soil sample will be collected from the fill material which is expected to be at approximately depths of 2 to 10 feet bgs based on field screening methods. Soil borings not exhibiting any evidence of impact will be sampled at 0 to 2 feet above the interface of fill/native material within vadose zone
- One soil sample will be collected from 0 to 2 feet below the observed contamination. If no evidence of impact is observed the soil sample will be collected from 0 to 2 feet below the interface of fill/native material within vadose zone
- One soil sample will be collected from vadose zone at 0 to 2 feet above the saturated zone

5.1.2 GROUNDWATER SAMPLING

Monitoring well purging and groundwater sampling will be performed in accordance with acceptable U.S. EPA low flow purging (LFP) and sampling techniques as outlined in the FSP. Special attention will be paid to minimizing the possibility of degassing the groundwater samples during sample collection. Groundwater samples will not be field filtered, unless otherwise indicated in Tables 5.1 to 5.4

5.1.3 VERTICAL AQUIFER SAMPLING

Vertical Aquifer Sampling (VAS) allows for the collection of representative samples at various sample depths to create a profile of soil and groundwater conditions. This method allows for the identification of confining layers which may limit migration of

groundwater impacts below a certain depth both vertically and horizontally (i.e., impact noted within certain confining layers). The purpose of this sampling as part of the RI investigation is to obtain information about the native soil and groundwater at depths greater than the historical information reviewed (i.e., deeper levels of the aquifer). Further VAS, temporary wells or monitoring wells may be installed at the Site dependant on the conclusion of this initial sampling in conjunction with the groundwater sampling on Site.

VAS will be conducted at two locations across the Site to determine soil and groundwater conditions at depth. As discussed below in Sections 5.3 and 5.4 the first location is within Area 1 (Lagoon J) the second in Area 2 (adjacent to MW 4). These two locations were chosen based on historical impacts, current borehole logs, and proximity to the Kalamazoo River. Further details are presented in Section 5.3 and 5.4.

VAS samples will be collected every 5 feet using a bailer, where possible, to a maximum depth of 40 feet bgs, to profile groundwater and soil conditions below the water table and the river banks. The use of a bailer will allow for consistency during sample collection. VAS samples will be collected for both filtered and unfiltered metals analysis.

Purging of the groundwater prior to sample collection will not occur as no water is being introduced during the drilling process; therefore, all water within the sampler is representative of the formation. As described in the SOP F-17 for the VAS sampling (included in the FSP for the Site), water levels will be taken to ensure that the groundwater samples are that of the formation.

5.1.4 QUALITY ASSURANCE/ QUALITY CONTROL SAMPLES

As outlined in the QAPP and FSP all quality assurance/ quality control samples (QA/QC) will be collected on the frequency as required, this includes field duplicate samples (at a frequency of 1 per 10 samples), matrix spike/ matrix spike duplicates (MS/MSDs) (at a frequency of 1 per 20 samples), trip blanks (per cooler containing water samples) and field equipment blanks (frequency of 1 per 10 samples). The quality control samples for trip blanks, field duplicates and MS/MSD samples are outlined on Table 5.1 through 5.3 and are estimated based on the current proposed sampling. Field and sampling conditions may alter this program, therefore the QA/QC samples will be adjusted accordingly.

5.2 ON SITE BUILDINGS

As noted in Section 4.0 the mill (Area 2) Former Quality Products and Sludge Dewatering Buildings (Area 3A) and Former Specialty Minerals Inc (Area 3B) buildings are identified as data gaps. Due to the limited knowledge of the historical land use and operations of these buildings a site inspection has been included in the Phase II RI and described below.

These site inspections will allow for further understanding of potential environmental concerns regarding historical operations that would require further investigation as part of the RI. As noted in Section 5.4, 5.5.2 and 5.5.3 additional investigations for these areas will be presented to the U.S. EPA in a tabular sampling and analysis plan for review and approval.

5.3 FORMER WASTEWATER SLUDGE DEWATERING LAGOON AND AERATION BASIN AREA (AREA 1)

The proposed sampling and analysis plan for Area 1 is presented in Table 5.1 with proposed sample locations identified on Figure 5.2 and 5.3. The rationale for the sampling approach for Area 1 is outlined below.

Soil Investigation

Further characterization of the potential contamination associated with the former wastewater lagoons is required to determine an appropriate remedial approach for the lagoon areas. Investigations within the lagoon areas are also to assess impacts associated with potential morphing of the lagoons. The objective of sample in the lagoons is to characterize potential soil impacts vertically rather than horizontally at this stage of the RI.

Investigations of the areas of undeveloped lands have been included to determine any potential impacts from historical land uses.

The following sampling activities will be conducted to address data gaps identified in Section 4.0. Further details including depths of soil borings, are presented in Table 5.1.

- Investigation of the identified lagoon areas is proposed to confirm the depth and extent of potential contamination. Installation of two soil borings one at each of the assumed peripheral ends of the former lagoons is proposed. The location of the deep soil borings would be based on field identification to assess physical constraints and previous investigations. An additional soil boring

within Lagoon J will be installed to confirm the depth of paper waste in this lagoon area. Soil sampling will be conducted as per Sampling Program 1.

- Confirmation of exceedances noted during historical investigations and further delineation of soil chemistry from across the lagoon area as needed to meet the objectives of the RI. Sampling will be focused on the 0 to 1 foot bgs interval to determine any direct exposure hazards to the public in relation to potential construction activities relating to the redevelopment of the Site.
- Investigation of any potential impacts associated with the aeration basin will be completed as per Sampling Program 1.
- Investigation of potential impacts in the areas adjacent to the lagoons, and aeration basin will be completed as per Sampling Program 1.
- Confirm the extent of the lagoons and if any, impacts associated with the surrounding soils resulting from migration of contaminants toward the Kalamazoo River will be completed as per Sampling Program 1.
- Determination of potential historical morphing of the lagoon areas will be completed as per Sampling Program 1.
- Investigation of potential impacts associated with the former secondary clarifier. Sampling will be completed as per Sampling Program 1.
- Soil sampling will be conducted in the wooded area as indicated on Figure 5.3 and described below.
- Collection of five samples to determine the soil physical properties for risk assessment purposes.
- Collection of soil samples as per Sampling Program 1 will occur during installation of MW 13, MW-14 and MW 15.

Soil Sampling- Wooded Area (Area 3)

Soil sampling will be conducted in the wooded area as indicated on Figure 5.3. Based on review of historical information, the wooded area has remained unchanged throughout mill expansions. As such, based on discussions with the U.S. EPA, 12 surficial soil samples and four soil borings were randomly selected within this area. The following is a description of the selection process:

- A 100 foot grid has been applied to the area creating 24 potential 100 by 100 foot sample areas.
- From the 24 potential sample areas, 12 locations (highlighted in yellow) were chosen based on a random number table (i.e., 1, 5, 7, 9, 11, 13, 14, 15, 16, 17, 19, and 23).
- A 9 square grid within each of the 24 potential sample areas was used to select the specific sample location.

- Sample locations (within the 9 square grids) were selected using a random number table starting from grid location at the southwest corner
- Soil boring locations were further selected by using a random number table to determine which 100 by 100 foot grid the soil borings would be placed (i.e. 5, 7, 14, and 16)
- Surface sampling will be conducted at the locations not selected for soil borings (i.e., 1, 9, 11, 13, 15, 17, 19, and 23)

This investigation will provide the appropriate soil quality information for initial characterization of this area. Further inspection of the wooded area will occur as part of the investigation.

Soil sampling will occur as per Sampling Program 2 at the four randomly selected soil borings locations. Surface samples will be collected at all locations as outlined in Table 5.1.

Groundwater Investigation

Further understanding of the groundwater flow pathways is critical to the understanding of the Site's hydrology. In addition, further characterizations of the potential impacts to groundwater from historical operations in this area are required. The following sampling activities will be conducted to address data gaps identified in Section 4.0.

- Installation of one monitoring well (MW-13) screened within the paper waste to determine contaminate concentrations of the waste for comparison to the Site's analytical data.
- Re-installation of SGWB-2 (MW-14) located south west of the lagoon areas to characterize groundwater flow direction through this area and provide an upgradient monitoring well location for the lagoon area.
- Installation of a monitoring well north of the former secondary clarifier (MW-15) to determine any potential groundwater impacts related to prior discharges.
- Soil sampling during installation of the new monitoring wells to characterize potential soil impacts in these areas as per sampling program 1.
- Completion of VAS at location MW-13 within Lagoon J. This area was selected to characterize the groundwater above, within and below the residual paper waste. Soil boring SPL-2 indicates paper waste from approximately 5.8 feet to 11 feet bgs. Further, black stained fine sand is noted from 11 feet to the borehole terminus. As the borehole log indicated the paper waste was saturated, this location would provide opportunity to sample the groundwater chemistry. No groundwater sampling has been conducted previously in this area. Further, this

lagoon is northwest of proposed location MW-14. This location will aid in the characterization of groundwater flow through the lagoon area and provide information related to the depth of potential confining layers within the native soil beneath the paper waste.

- Sampling of current monitoring wells (i.e. MW-8, MW-9, MW-10, MW-11 and MW-12) and the three new monitoring wells (i.e., MW-13, MW-14, and MW-15) to determine and confirm groundwater impacts.

5.4 MILL BUILDING AREA (AREA 2)

The proposed sampling and analysis plan for Area 2 is presented in Table 5.2 with proposed sample locations identified on Figure 5.4. The rationale for the sampling approach for Area 2 is outlined below.

Mill Buildings Inspection

As described in Section 5.2, a detailed inspection consisting of a review of available historical information pertaining to the various areas of operation within the mill buildings followed by a walk through of the buildings, will be completed near the beginning of the Phase II RI field activities to identify potential areas of release. This will include historical and current ASTs locations, loading and unloading areas, storage areas, process rooms, drainage piping and potential underground conveyances to the wastewater lagoon areas.

Following completion of the walk through, development of a tabular sampling and analysis plan (similar to Tables 5.1 through 5.3) and an accompanying proposed sample location figure will be presented to investigate any potential impacts to soil and/or groundwater within the mill buildings. After review and approval of the tabular sampling and analysis plan, the scope of the investigation will be completed as part of the Phase II RI activities.

Soil Investigation

Significant soil investigation activities have been completed within Area 2 for the areas outside of the mill buildings. Therefore, further investigations are needed as part of the Phase II RI sampling activities. Investigation into the areas along the Mill Race and the undeveloped south parking lots will be conducted. The following sampling activities will be conducted to address data gaps identified in Section 4.0. Further details including depths of soil borings are presented in Table 5.2.

- Confirmation and vertical delineation of potential contamination in the area of TP-17 and TP-18 surrounding the historical transformer pad located in the north

east portion of the Site adjacent to the Kalamazoo River. Sampling will be conducted as per Sampling Program 1. Collection of one surface sample from each location will be completed.

- Visual inspection of outflow points identified during previous investigations along the Kalamazoo River to ensure capping was conducted properly and no further issues pertain to these outflows. Surface sampling may be conducted if any visual evidence of impact is noted.
- Visual inspection of the surface soils surrounding the mill buildings to determine if any staining is present in relation to historical Site activities. Surface soil sampling may be conducted if necessary.
- Installation of one soil boring (MW-16) adjacent to the Mill Race to determine soil conditions adjacent to the mill buildings. Samples will be collected as per Sampling Program 1.
- Installation of one soil boring (i.e., MW-17) in the southern corner of the parking lot area adjacent to the Mill Race for visual inspection. Samples will be collected as per Sampling Program 2.
- Completion of three test pits within the undeveloped south parking lot and former background location BK5 to confirm the presence of fill below the parking lot areas and determine impacts associated with historical activities. Sampling will be conducted as per Sampling Program 2 including the collection of surface samples at each location.
- Collection of samples to determine the soil physical properties for risk assessment purposes.

Groundwater Investigation

The hydrogeology in portions of Area 2 has not been fully defined and further understanding of the groundwater flow pathways is necessary. It is expected that the groundwater flow within this area is highly dependant of the mill race and the Kalamazoo River systems. The following sampling activities will be conducted to address data gaps identified in Section 4.0.

- Installation of a monitoring well (i.e., MW 16) adjacent to the mill buildings near the end of the Mill Race to further define the groundwater flow patterns at this area.
- Installation of one monitoring well (i.e., MW-17) in the southeast portion of the Site to determine influences of the Mill Race on the water levels at the southern property boundary in relation to water levels at SG-1.
- Although the two proposed monitoring wells will be sampled for chemical analysis, the primary objective of these two locations is to further understand the hydraulic interaction of the Mill Race and groundwater.

- VAS will occur adjacent to MW-4. This location is within the proximity of the Kalamazoo River and downgradient of the mill buildings. Historical impacts have been noted at this location, therefore sampling will determine the depth of impact within this area and identify potential confining layers along the Kalamazoo River and capturing any residual impacts downgradient of the mill buildings.
- Collection of groundwater samples from previously installed monitoring wells (i.e., MW-1, MW-2, MW-3, MW-4, and MW-5) and the newly installed monitoring wells (i.e., MW-16 and MW-17) to confirm the groundwater chemistry at the Site.

Surface Water Sampling

Sampling within the Mill Race and the Kalamazoo River will be conducted to collect analytical data necessary for use of the Part 201 GSI screening criteria (i.e., collection of hardness data). Sampling will also be conducted for low-level mercury, and methyl mercury to determine levels within the two adjacent water bodies for completion of the RI report. Further, surface water levels will be measured to further understand the hydrogeologic conditions on Site.

5.5 NORTH CENTRAL PORTION OF THE SITE (AREA 3)

The proposed sampling and analysis plan for Area 3 is presented in Table 5.3 and proposed sample locations are identified on Figure 5.5. The rationale for the sampling approach for each of the subsections of the Area 3 is outlined below.

5.5.1 NON SPECIFIC AREAS (AREA 3 GENERAL)

Soil Investigation

Based on the historical information reflected on Figure 3.3, comprehensive soil sampling has been completed in the northern portion of the Area 3. Advancement of three soil borings (i.e., SB-301, SB-302, and SB-321) in the northern portion of the Area 3 will confirm the historical exceedances (i.e., DG3, DG4, and SGWB-10) observed at this portion of the Site. Sampling at this location will follow Sampling Program 1. One surface soil sample will be collected from each location.

In addition, test pitting at seven locations within the undeveloped areas is proposed to confirm the presence of the quality of fill materials beneath the parking lot areas. Each location has been selected based on historical information available and/or not available.

and to provide sufficient coverage over this area. Soil sampling will be conducted as per Sampling Program 2. Surface soil samples will be collected at each location.

A visual inspection of the remainder of the area will be conducted to identify presence of surface soil staining. After inspection, further sampling may be proposed and will be completed as part of the Phase II RI activities.

Soil samples from various locations at this portion of the Site will be collected for determination of the physical soil properties.

Soil sampling will occur during the installation of MW-18 as per Sampling Program 1.

Groundwater Investigation

Groundwater investigations will be based on the historical sampling conducted at the Site. The following sampling activities will be carried out to address data gaps identified in Section 4.0:

- Re installation of SGWB-10 to confirm groundwater exceedances previously noted (i.e., MW-18)
- Collection of groundwater samples from previously installed monitoring wells (i.e., MW-6 and MW-7) and the new monitoring well (i.e., MW-18) to confirm the groundwater chemistry at the Site.

5.5.2 FORMER QUALITY PRODUCTS AND SLUDGE DEWATERING BUILDINGS (AREA 3A)

The Former Quality Products and Sludge Dewatering Buildings are located on the western portion of the Area 3. Limited information is available regarding the historical operations of these buildings and this area has not undergone prior investigations. In order to fully understand historical land uses, a Freedom of Information Act Request (FOIA) will be requested for this property followed by a visual inspection of the interior and exterior of the buildings as needed. Based on information received, additional investigations may be considered and a sampling plan will be proposed to the U.S. EPA in the form of a tabular sampling and analysis plan for review and approval and will be included as part of the Phase II RI activities.

5 5 3 FORMER SPECIALTY MINERALS INC (AREA 3B)

The former Specialty Minerals Building is located on the southwestern portion of the Area 3. Former manufacturing of chemical was conducted at this location which was then transported to the paper mill to aid in production. Limited information is available for this location; therefore, a FOIA search will be conducted for this property to determine any potential releases of spills associated with historical Site activities followed by a walk through of the interior and exterior of the buildings as needed. Based on information received, additional investigations may be considered and a sampling plan will be proposed to the U.S. EPA in the form of a tabular sampling and analysis plan for review and approval and will be completed as part of the Phase II RI activities.

5 5 4 FORMER COAL PILE STORAGE (AREA 3C)

The former coal pile storage area is located in the center of the Area 3. This area historically was the storage area for the coal used as a fuel for on-site processing. Limited historical sampling has been conducted at this area and it is unknown to what depth coal has been placed in this area. Therefore, as part of the Phase II RI, eight test pits (i.e., TP-308 through TP-315) will be excavated to depths of approximately 10 feet bgs to further identify the potential subsurface coal contamination within this area to determine the location/depth of potentially contaminated soils, and to confirm soil quality. Soil sampling will be conducted as per Sampling Program 2 to determine historical impacts beyond the coal present within this location. Collection of a minimum of five surface soil samples will be conducted based on field screening.

5 5 5 NO. 6 FUEL TANK AREA (AREA 3D)

The No. 6 Fuel Tank Area has been subject to many historical Site investigations. This area is located on the northeastern side of the Area 3. Currently the 200,000 gallons Fuel Oil Tank is on the property and it is unknown if this tank still contains fuel oil. The following additional activities are proposed for the Area 3D:

Tank Inspection

A inspection of the exterior structural integrity of the tank will be conducted to determine areas of potential releases. The inspection would attempt to determine potential presence and amount of fuel in the tank and to identify staining noted around the perimeter of the tank area. Based on this inspection, further sampling beyond what

is outlined below maybe proposed and will be completed as part of the Phase II RI activities

Soil Investigation

The Phase II RI sampling activities include the advancement of five soil borings in the vicinity of the 200,000 gallon Fuel Oil Tank to further define any impacts related to soil contamination around the fuel tank. Historical analytical data indicated various exceedances throughout sampling activities conducted at the area around the tank. Due to previous removal of soils surrounding the tank, it is assumed that the top 2 feet of the area will be fill. Advancement of five soil borings (i.e., SB-303 through SB-307) to characterize any potential sources of impact. Soil sampling will be conducted as per soil Sampling Program 3 which includes surface soil sampling based on field screening at each location.

Soil sampling will occur at MW 19 during installation activities as per Sampling Program 2 including a surface sample.

Groundwater Investigation

Various temporary monitoring well locations have been placed around the fuel oil tank. Historical groundwater impacts were noted at temporary well SGWA 5 located downgradient of the fuel oil tank. Installation of one monitoring well (i.e., MW-19) to replace SGWA-5 will confirm previous groundwater impacts noted at this area.

5 5 6 FORMER COAL STORAGE TUNNEL (AREA 3E)

The Former Coal Storage Tunnel is located south of the No. 6 Fuel Tank Area on the eastern part of the Area 3. Limited soil sampling has been conducted in this area. An assessment of the tunnel was conducted in October 2008 (submitted to the U.S. EPA on February 5, 2009, by RMT) as part of the Phase I RI, which determined that liquid is present within the bottom of the tunnel area. This liquid was characterized as a heavy fuel oil with a layer of water present above it. After inspection, it was determined that the concrete tunnel was intact. There were no cracks or other damages noted during inspection activities (RMT, 2009). Sampling of the fuel oil was conducted at that time.

To confirm no impacts outside of the coal tunnel are present, the installation of five soil borings (i.e., SB-308 through SB-312) around the perimeter of the former Coal Storage Tunnel is proposed to characterize any potential sources of contamination around the fuel oil lines and to determine if potential soil impacts at depths below the base of the tunnel, based on the results of the investigation during Phase I of the RI. Soil sampling will be conducted as per Sampling Program 2. The collection of three surface samples

will be based on field screening. Test pitting will occur to determine any impacts associated with the undeveloped parts of this area (TP-304 and TP-305). Sampling conducted at these locations was discussed in Section 5.5.1.

Groundwater Investigation

Limited groundwater sampling has been conducted in this area. Sampling will occur at MW-2 to confirm groundwater chemistry at this location.

6 0 PROJECT SCHEDULE

Upon approval, CRA will initiate the Phase II RI program as scheduled in November 2009 with completion in February 2010 depending on weather and Site conditions. Completion of the implementation of the Phase II RI is scheduled for March 2010. The project schedule is presented on Figure 6.1.

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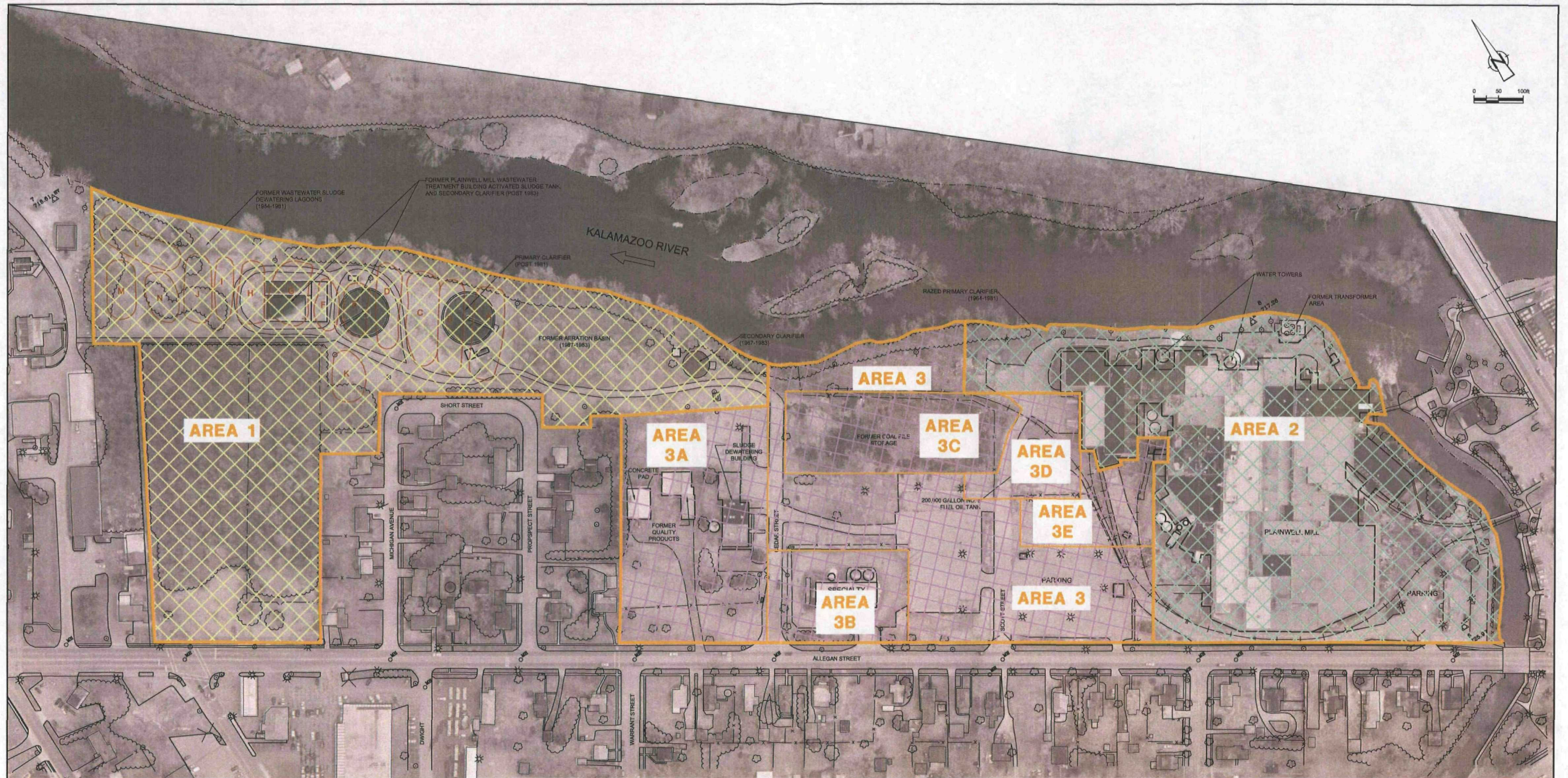




SOURCE: USGS QUADRANGLE MAP;
OTSEGO, MICHIGAN
1967, REVISED 1973



figure 1.1
SITE LOCATION MAP
PHASE II REMEDIAL INVESTIGATION WORK PLAN
FORMER PLAINWELL, INC MILL PROPERTY
Plainwell, Michigan



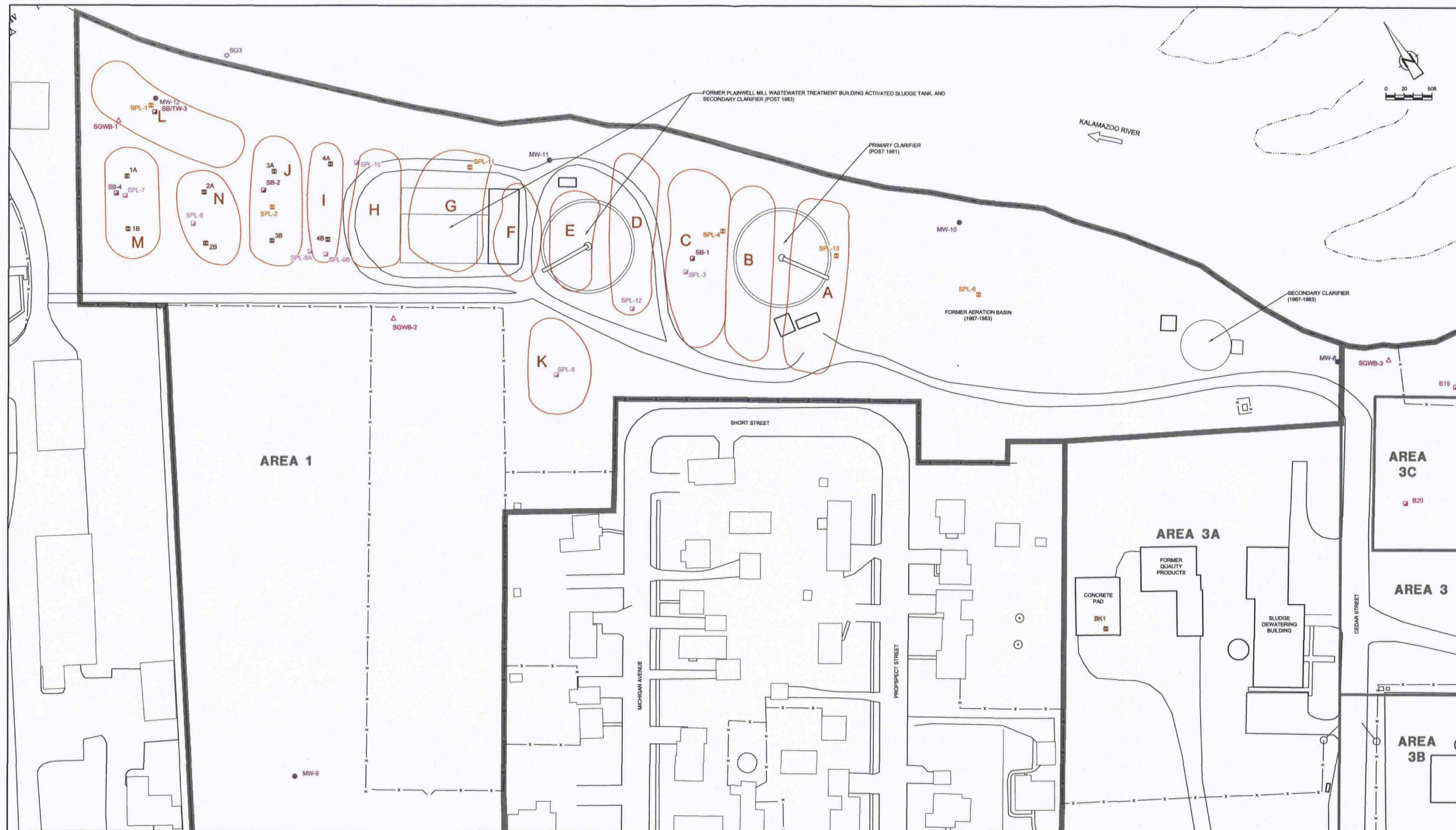
LEGEND	
	AREA BOUNDARY
	SHORELINE
	FORMER WASTEWATER SLUDGE DEWATERING LAGOONS
	FENCELINE
	RAILWAY
	VEGETATION
	UTILITY POLE
	LIGHT STANDARD
	MANHOLE
	SIGN
	SURVEY BENCHMARK

SCALE VERIFICATION: THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.			
No	Revision	Date	Initial

Approved	

SITE PLAN	
PHASE II REMEDIAL INVESTIGATION WORK PLAN	
FORMER PLAINWELL, INC MILL PROPERTY PLAINWELL, MICHIGAN	

CONESTOGA-ROVERS & ASSOCIATES	
Source Reference:	Date: MAY 2009
Project Manager: G. CARLI	Reviewed By: E. STAHL
Designed By:	Drawn By: C. JACOBI
Scale: 1:100	Project No: 056394-04
Report No: 002	Drawing No: FIGURE 1.2



LEGEND

- AREA BOUNDARY
- - - SHORELINE
- FORMER WASTEWATER SLUDGE DEWATERING LAGOONS
- x - x - FENCELINE
- ~ VEGETATION
- PREVIOUS SOIL SAMPLE LOCATION FOR ANALYSIS OF PCBs (BBL, 1996a)
- PREVIOUS SOIL SAMPLE LOCATION (ERM, 1997)
- PREVIOUS SOIL BORING LOCATION FOR VISUAL CLASS. ONLY (BBL, 1996a)
- PREVIOUS SOIL BORING LOCATION (WILKINS & WHEATON, 1980)
- PREVIOUS SOIL BORING LOCATION FOR ANALYSIS (FTC&H, 2008)
- PREVIOUS SOIL BORING FOR VISUAL CLASSIFICATION ONLY (RMT, 2008)
- △ PREVIOUS TEMPORARY WELL LOCATION FOR ANALYSIS (FTC&H, 2008)
- △ PREVIOUS GROUNDWATER SAMPLE LOCATION (ERM, 1997)
- RIFS STAFF GAUGE LOCATION (APPROXIMATE)

SCALE VERIFICATION: THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved _____

**AREA 1
SAMPLE LOCATIONS**

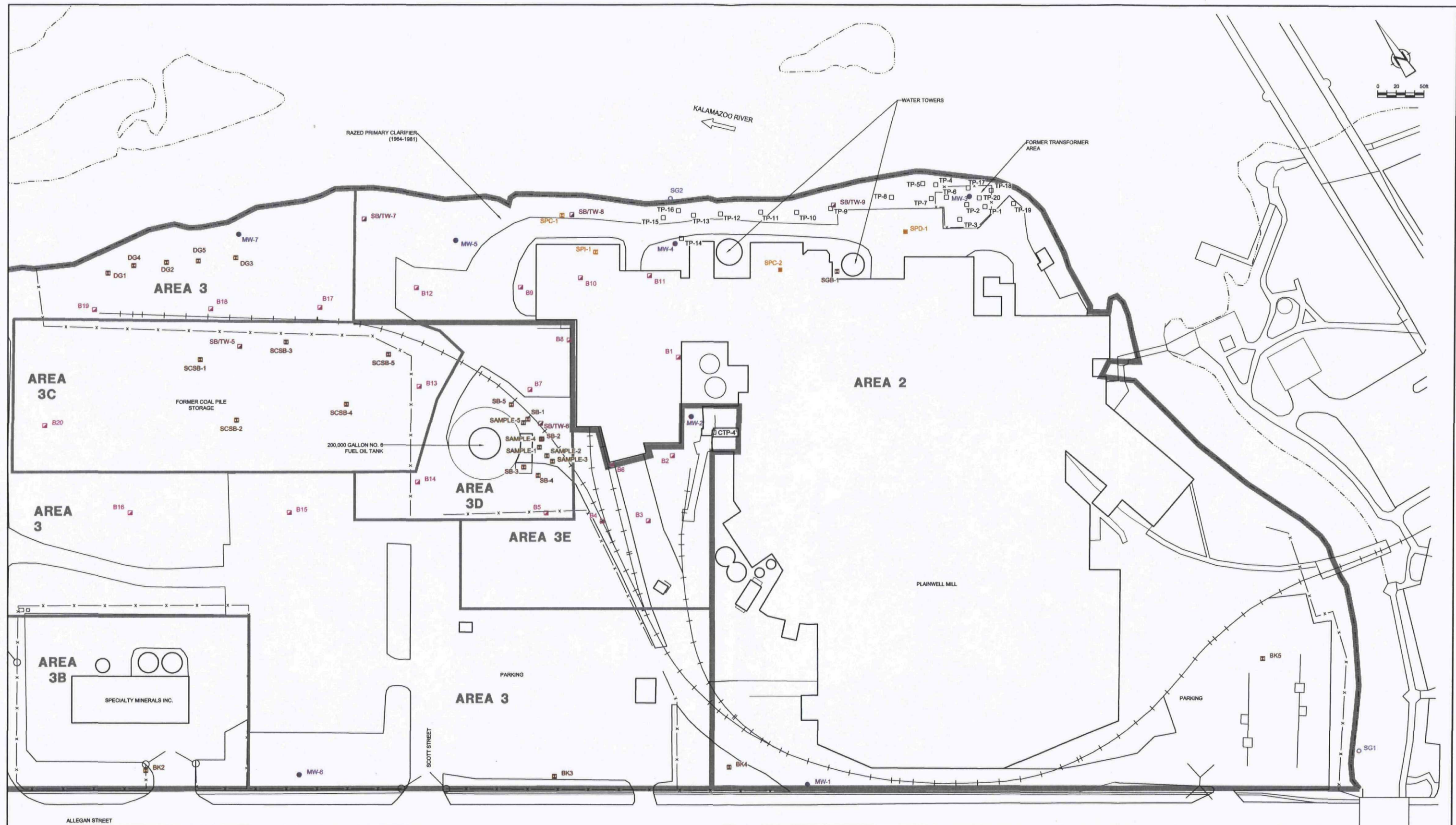
PHASE II REMEDIAL INVESTIGATION WORK PLAN

FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference: RMT PROJ. 00-05121.03		Date: MAY 2009	
Project Manager: G. CARLI	Reviewed By: E. STAHL	Designed By:	Drawn By: C. JACOBI
Scale: 1:100	Project No: 056394-04	Report No: 002	Drawing No: FIGURE 3.1

056394-04(002)GN-SC001 NOV 18/2009



LEGEND

<p>— AREA BOUNDARY</p> <p>--- SHORELINE</p> <p>— RAILWAY</p> <p>— FENCELINE</p> <p>— VEGETATION</p> <p>● RI/FS GROUNDWATER MONITORING WELL LOCATION</p> <p>○ RI/FS STAFF GAUGE LOCATION (APPROXIMATE)</p> <p>● TEST WELL OR PRODUCTION WELL LOCATION (LAYNE, 1967; PEERLESS-MIDWEST, 1974-1995)</p>	<p>■ PREVIOUS SOIL SAMPLE LOCATION FOR ANALYSIS OF PCBs (BBL, 1996a)</p> <p>■ PREVIOUS SOIL SAMPLE LOCATION (ERM, 1997)</p> <p>■ PREVIOUS SOIL SAMPLE LOCATION (TAPLIN ENVIRONMENTAL SERVICES, 1999)</p> <p>■ PREVIOUS SOIL BORING/TEMPORARY WELL LOCATION (WILKINS & WHEATON, 1980)</p> <p>■ PREVIOUS SOIL BORING LOCATION FOR ANALYSIS (FTC&H, 2006)</p> <p>□ TEST PIT</p> <p>■ PREVIOUS SEDIMENT SAMPLE LOCATION (BBL, 1996a)</p>
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No	Revision	Date	Initial

Approved _____

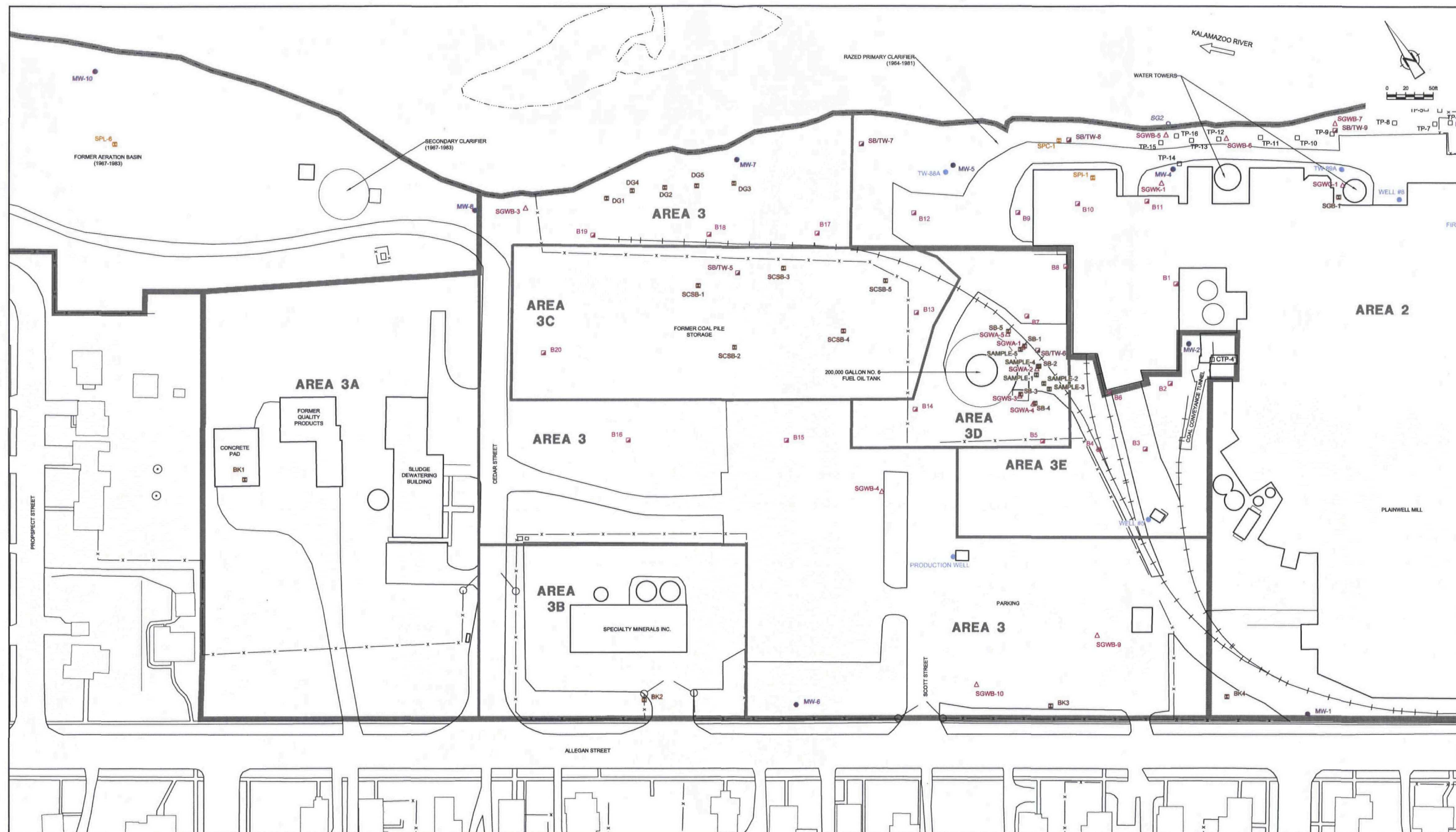
**AREA 2
SAMPLE LOCATIONS**

PHASE II REMEDIAL INVESTIGATION WORK PLAN

**FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

CRA CONESTOGA-ROVERS & ASSOCIATES

Source Reference: RMT PROJ. 00-05121.03		Date: MAY 2009	
Project Manager: G. CARLI	Reviewed By: E. STAHL	Designed By:	Drawn By: C. JACOBI
Scale: 1:100	Project No: 056394-04	Report No: 002	Drawing No: FIGURE 3.2



LEGEND

- AREA BOUNDARY
- SHORELINE
- RAILWAY
- FENCELINE
- VEGETATION
- RIFS GROUNDWATER MONITORING WELL LOCATION
- PREVIOUS GROUNDWATER SAMPLE LOCATION (ERM, 1997)
- RIFS STAFF GAUGE LOCATION (APPROXIMATE)
- TEST WELL OR PRODUCTION WELL LOCATION (LAYNE, 1967; PEERLESS-MIDWEST, 1974-1995)

- PREVIOUS SOIL SAMPLE LOCATION FOR ANALYSIS OF PCBs (BBL, 1996a)
- PREVIOUS SOIL SAMPLE LOCATION (ERM, 1997)
- PREVIOUS SOIL SAMPLE LOCATION (TAPLIN ENVIRONMENTAL SERVICES, 1998)
- PREVIOUS SOIL BORING/TEMPORARY WELL LOCATION (WILKINS & WHEATON, 1980)
- PREVIOUS SOIL BORING LOCATION FOR ANALYSIS (FTC&H, 2006)
- ☐ TEST PIT

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**AREA 3
SAMPLE LOCATIONS**

PHASE II REMEDIAL INVESTIGATION WORK PLAN

**FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

CONESTOGA-ROVERS & ASSOCIATES

Source Reference: RMT PROJ. 00-05121.03

Project Manager: G. CARLI

Scale: 1:100

Reviewed By: E. STAHL

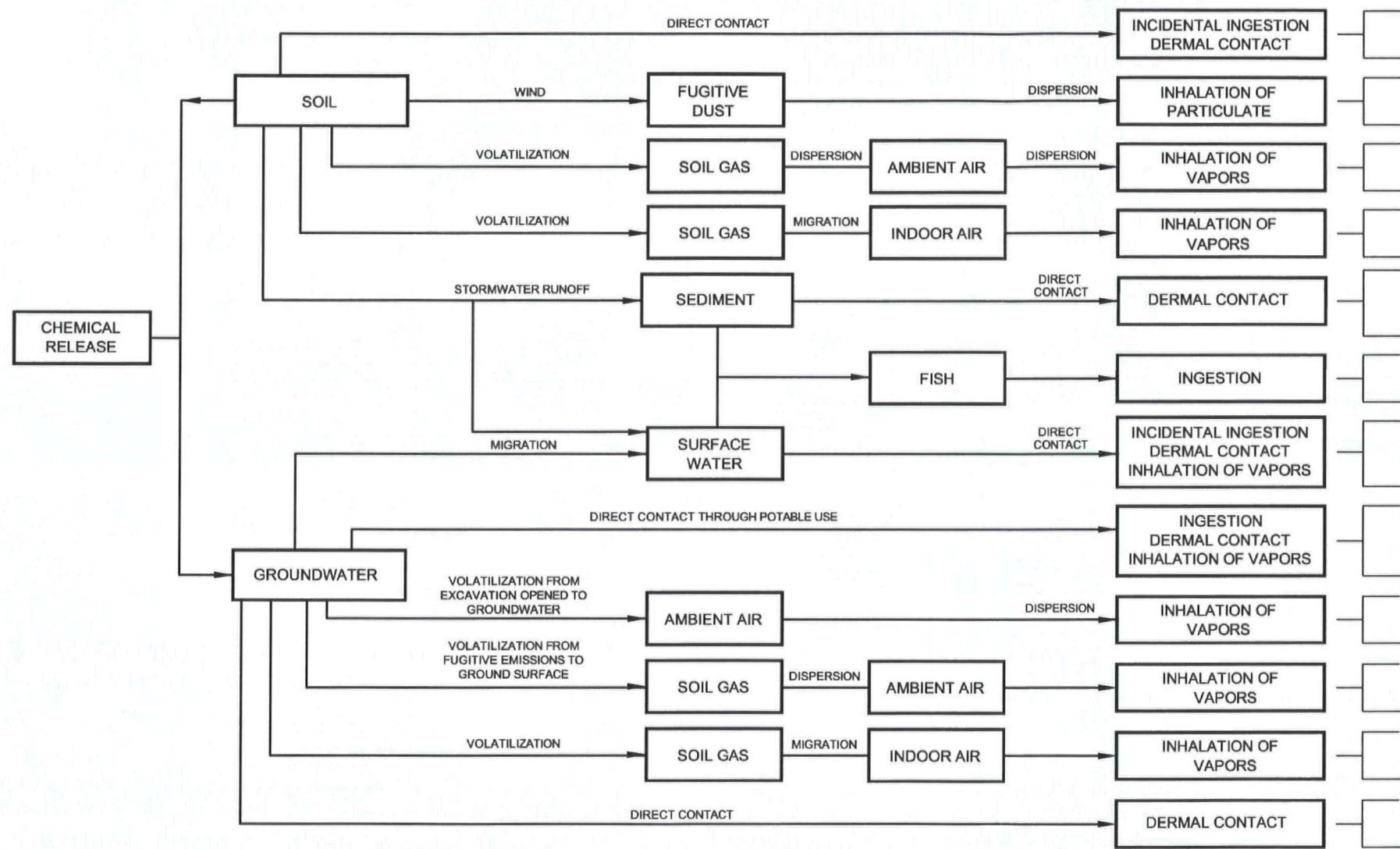
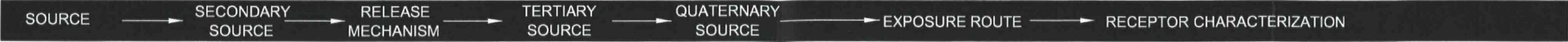
Project No: 056394-04

Date: MAY 2009

Designed By: C. JACOBI

Report No: 002

Drawing No: FIGURE 3.3



POTENTIALLY EXPOSED RECEPTORS ON-SITE				
CURRENT/FUTURE	FUTURE			
TRESPASSER	CONSTRUCTION / UTILITY WORKER	COMMERCIAL WORKER	RESIDENT	RECREATIONAL VISITOR
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
—	—	●	●	—
— (1)	—	—	—	— (1)
— (1)	—	—	—	— (1)
— (1)	—	—	—	— (1)
—	—	—	●	—
—	●	—	—	—
●	●	●	●	●
—	—	●	●	—
—	●	—	—	—

LEGEND

● POTENTIALLY COMPLETE EXPOSURE PATHWAY
— INCOMPLETE EXPOSURE PATHWAY

NOTES:
(1) SEDIMENT AND SURFACE WATER ARE NOT PRESENT ON-SITE. SEDIMENT AND SURFACE WATER OFF-SITE IN THE KALAMAZOO RIVER AND MILL RACE ARE BEING CONSIDERED UNDER SEPARATE SITE.

figure 3.4

HUMAN HEALTH CONCEPTUAL SITE MODEL
PHASE II REMEDIAL INVESTIGATION WORK PLAN
FORMER PLAINWELL, INC MILL PROPERTY
Plainwell, Michigan



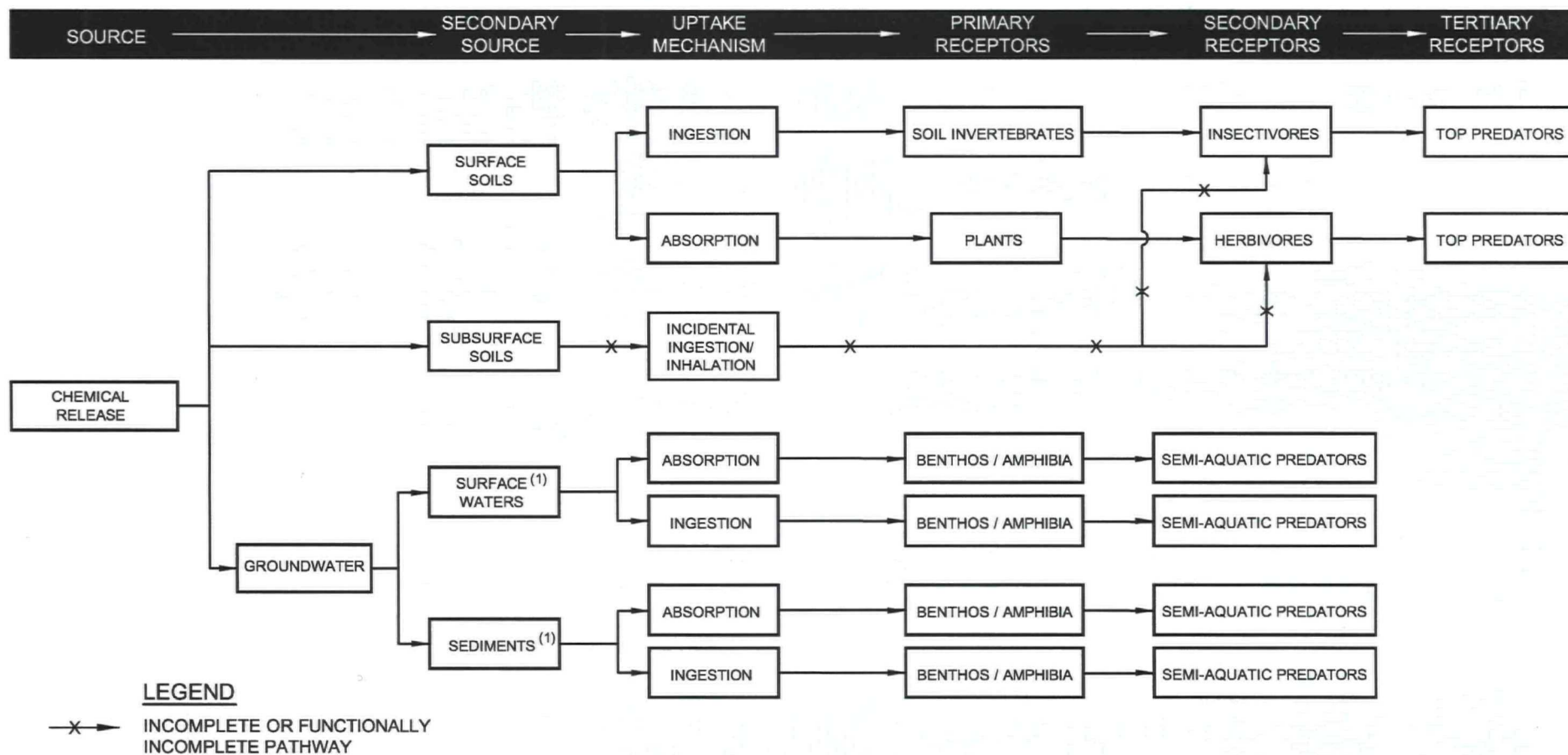
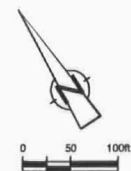
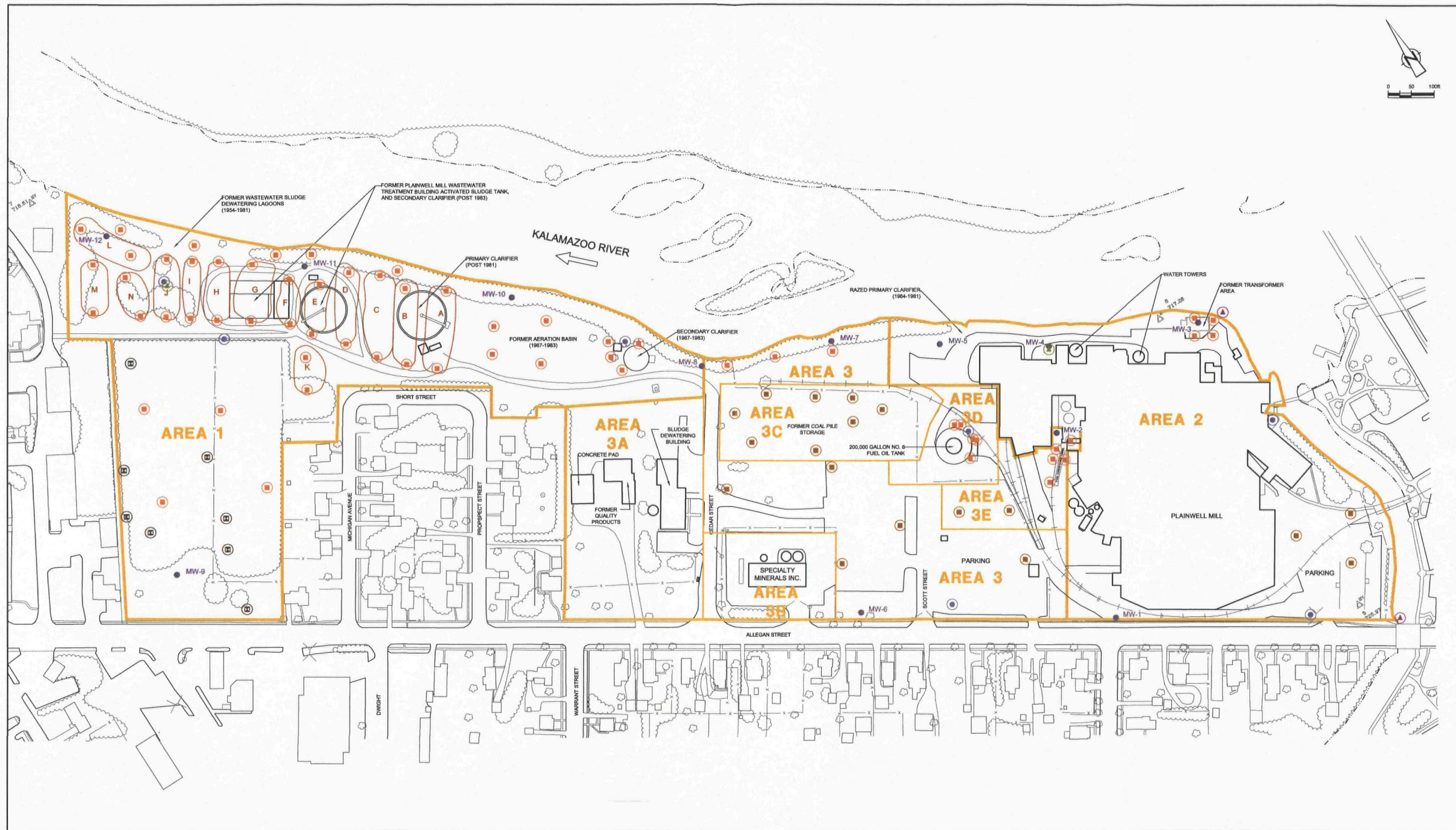


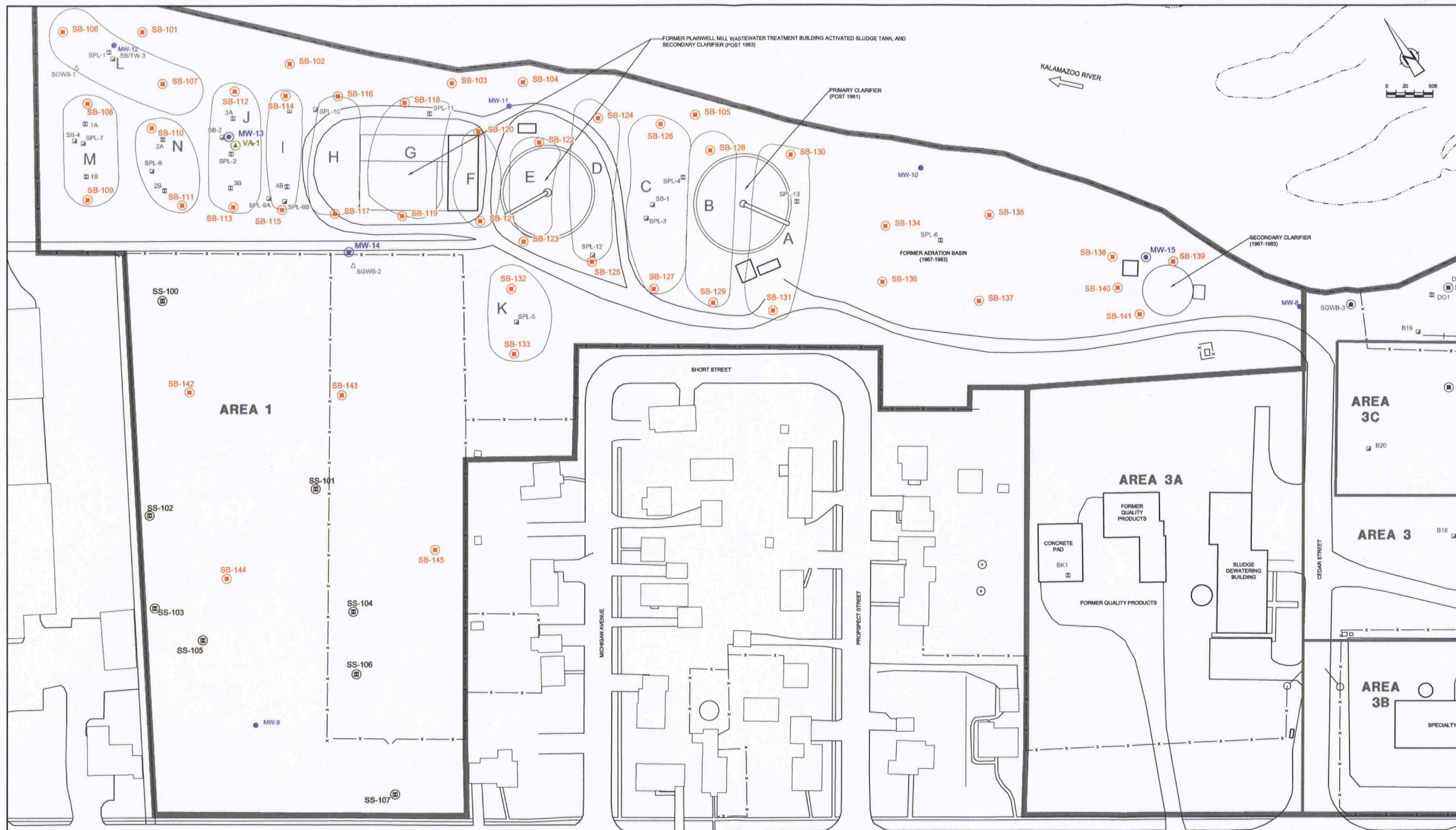
figure 3.5

ERA CONCEPTUAL SITE MODEL
 PHASE II REMEDIAL INVESTIGATION WORK PLAN
 FORMER PLAINWELL, INC. MILL PROPERTY
 Plainwell, Michigan





<p>LEGEND</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>— AREA BOUNDARY</p> <p>--- SHORELINE</p> <p>--- FORMER WASTEWATER SLUDGE DEWATERING LAGOONS</p> <p>--- FENCELINE</p> <p>--- RAILWAY</p> <p>--- VEGETATION</p> </div> <div style="width: 45%;"> <p>▲ SURVEY BENCHMARK</p> <p>● MW-9</p> <p>● EXISTING MONITORING WELL LOCATION</p> <p>● PROPOSED MONITORING WELL LOCATION</p> <p>● PROPOSED SOIL BORING LOCATION</p> <p>● PROPOSED TEST PIT LOCATION</p> <p>● PROPOSED SURFACE SOIL SAMPLE LOCATION</p> <p>● PROPOSED SURFACE WATER SAMPLE LOCATION</p> <p>● PROPOSED VERTICAL AQUIFER TESTING LOCATION</p> </div> </div>	<p>SCALE VERIFICATION: THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.</p>	<p>Approved _____</p>	<p>SITE-WIDE PROPOSED PHASE II SAMPLING LOCATIONS</p> <p>PHASE II REMEDIAL INVESTIGATION WORK PLAN</p> <p>FORMER PLAINWELL, INC MILL PROPERTY</p> <p>PLAINWELL, MICHIGAN</p>	<div style="text-align: center;"> <p>CONESTOGA-ROVERS & ASSOCIATES</p> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Source Reference:</td> <td colspan="2">Date:</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">MAY 2009</td> </tr> <tr> <td>Project Manager:</td> <td>Reviewed By:</td> <td>Designed By:</td> <td>Drawn By:</td> </tr> <tr> <td>G. CARLI</td> <td>E. STAHL</td> <td></td> <td>C. JACOBI</td> </tr> <tr> <td>Scale:</td> <td>Project No:</td> <td>Report No:</td> <td>Drawing No:</td> </tr> <tr> <td>1:100</td> <td>056394-04</td> <td>002</td> <td>FIGURE 5.1</td> </tr> </table>	Source Reference:		Date:				MAY 2009		Project Manager:	Reviewed By:	Designed By:	Drawn By:	G. CARLI	E. STAHL		C. JACOBI	Scale:	Project No:	Report No:	Drawing No:	1:100	056394-04	002	FIGURE 5.1
Source Reference:		Date:																										
		MAY 2009																										
Project Manager:	Reviewed By:	Designed By:	Drawn By:																									
G. CARLI	E. STAHL		C. JACOBI																									
Scale:	Project No:	Report No:	Drawing No:																									
1:100	056394-04	002	FIGURE 5.1																									



LEGEND

<p>— AREA BOUNDARY</p> <p>— SHORELINE</p> <p>— FORMER WASTEWATER SLUDGE DEWATERING LAGOONS</p> <p>— FENCELINE</p> <p>— VEGETATION</p> <p>● PROPOSED MONITORING WELL LOCATION</p> <p>○ PROPOSED SOIL BORING LOCATION</p> <p>□ PROPOSED SURFACE SOIL SAMPLE LOCATION</p> <p>△ PROPOSED VERTICAL AQUIFER SAMPLING LOCATION</p>	<p>□ PREVIOUS SOIL SAMPLE LOCATION</p> <p>□ PREVIOUS SOIL BORING LOCATION</p> <p>● EXISTING MONITORING WELL LOCATION</p> <p>□ PREVIOUS TEMPORARY WELL LOCATION</p> <p>△ PREVIOUS GROUNDWATER SAMPLE LOCATION</p> <p>○ PREVIOUS STAFF GAUGE LOCATION (APPROXIMATE)</p>
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SCALE VERIFICATION: THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

No	Revision	Date	Initial

Approved _____

AREA 1 PROPOSED PHASE II SAMPLE LOCATIONS

PHASE II REMEDIAL INVESTIGATION WORK PLAN

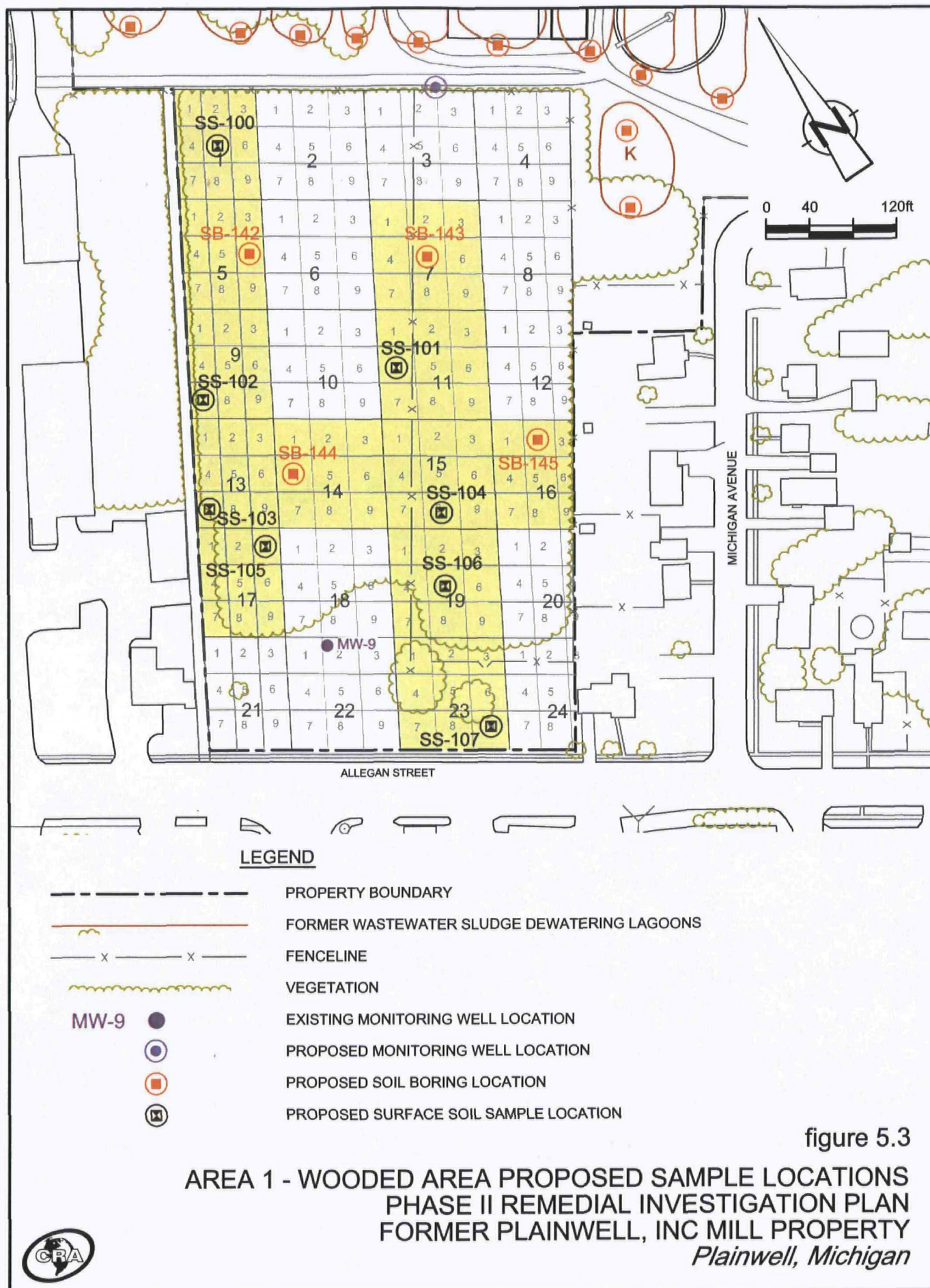
FORMER PLAINWELL, INC MILL PROPERTY

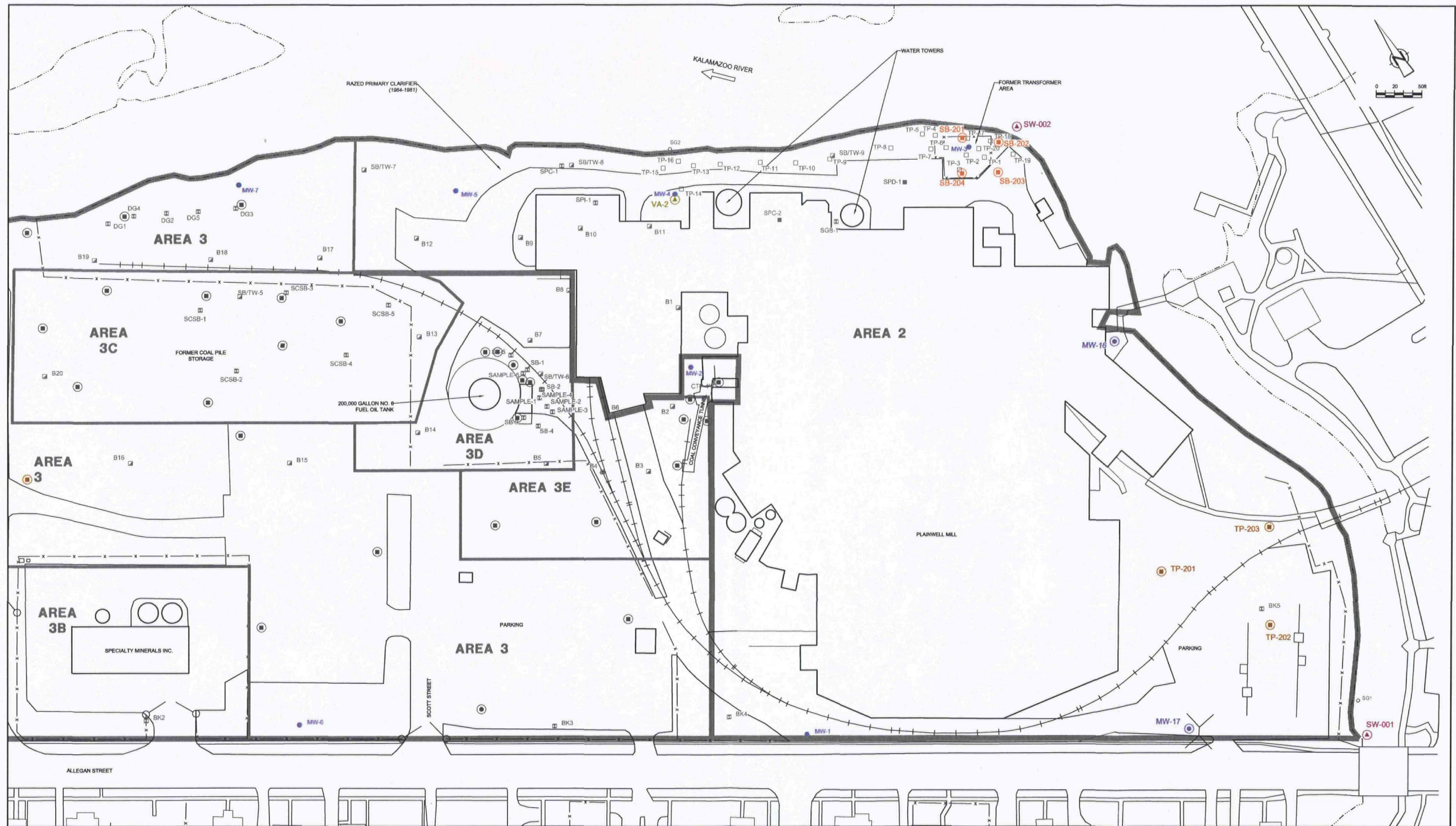
PLAINWELL, MICHIGAN

CRA CONESTOGA-ROVERS & ASSOCIATES

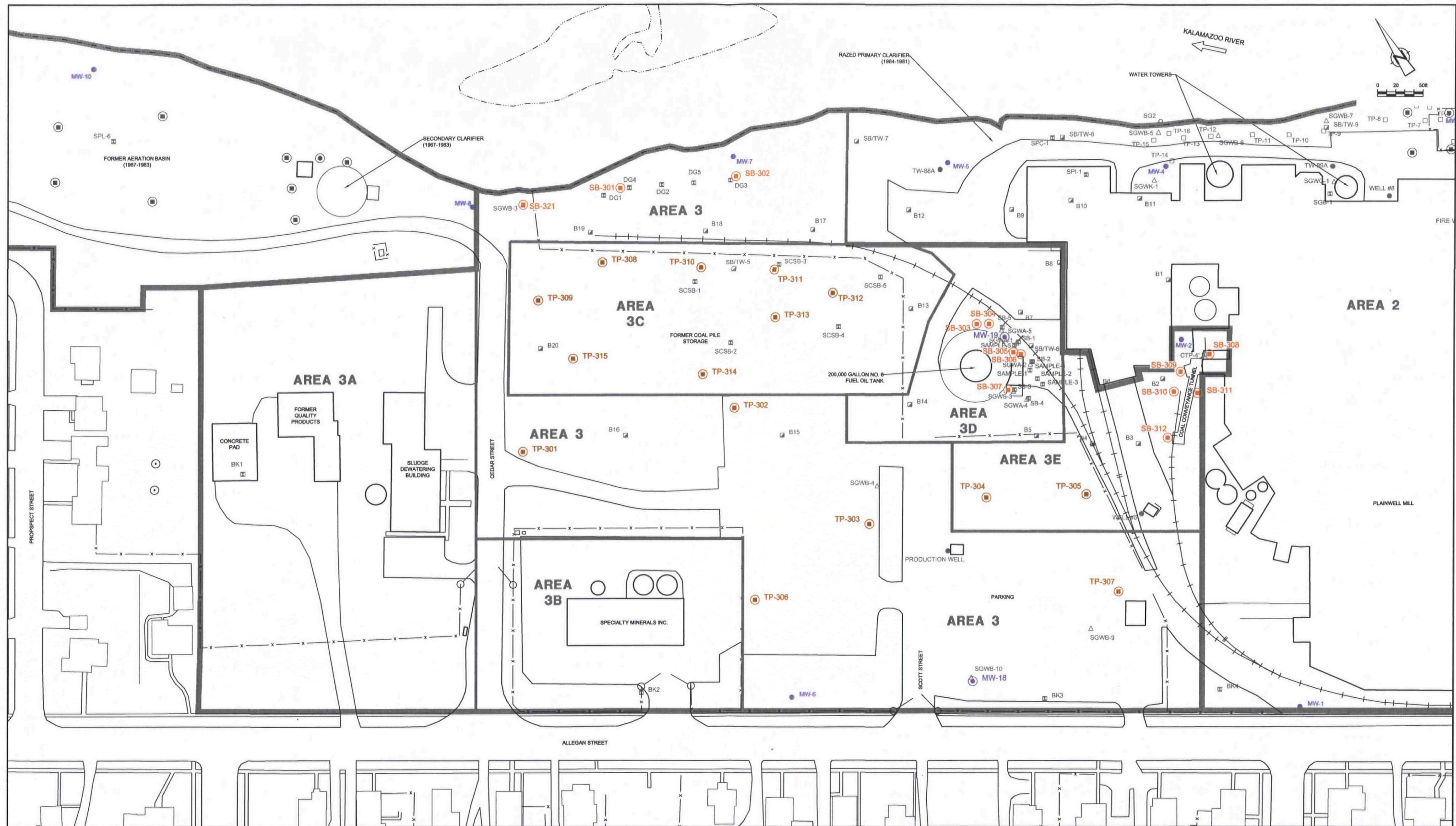
Source Reference:	RMT PROJ. 00-05121.03	Date:	MAY 2009
Project Manager:	G. CARLI	Reviewed By:	E. STAHL
Designed By:	C. JACOBI	Drawn By:	C. JACOBI
Scale:	1:100	Project No:	056394-04
Report No:	002	Drawing No:	FIGURE 5.2

056394-04(002)JH-SC008 NOV 16/2009





<p>LEGEND</p> <ul style="list-style-type: none"> — AREA BOUNDARY - - - SHORELINE — RAILWAY - - - FENCELINE — VEGETATION ● PROPOSED MONITORING WELL LOCATION ○ PROPOSED SOIL BORING LOCATION ○ PROPOSED TEST PIT LOCATION ○ PROPOSED SURFACE WATER SAMPLE LOCATION ○ PROPOSED VERTICAL AQUIFER SAMPLING LOCATION ■ PREVIOUS SOIL SAMPLE LOCATION ■ PREVIOUS SOIL BORING LOCATION □ PREVIOUS TEST PIT ■ PREVIOUS SEDIMENT SAMPLE LOCATION ● EXISTING GROUNDWATER MONITORING WELL LOCATION △ PREVIOUS GROUNDWATER SAMPLE LOCATION ○ PREVIOUS STAFF GAUGE LOCATION (APPROXIMATE) 	<p>SCALE VERIFICATION: THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.</p>	<p>Approved _____</p>	<p align="center">AREA 2 PROPOSED PHASE II SAMPLE LOCATIONS</p> <p align="center">PHASE II REMEDIAL INVESTIGATION WORK PLAN</p> <p align="center">FORMER PLAINWELL, INC MILL PROPERTY PLAINWELL, MICHIGAN</p>	<p align="center">CRA CONESTOGA-ROVERS & ASSOCIATES</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Source Reference: RMT PROJ. 00-05121.03</td> <td colspan="2">Date: MAY 2009</td> </tr> <tr> <td>Project Manager: G. CARLI</td> <td>Reviewed By: E. STAHL</td> <td>Designed By:</td> <td>Drawn By: C. JACOBI</td> </tr> <tr> <td>Scale: 1:100</td> <td>Project No: 056394-04</td> <td>Report No: 002</td> <td>Drawing No: FIGURE 5.4</td> </tr> </table>	Source Reference: RMT PROJ. 00-05121.03		Date: MAY 2009		Project Manager: G. CARLI	Reviewed By: E. STAHL	Designed By:	Drawn By: C. JACOBI	Scale: 1:100	Project No: 056394-04	Report No: 002	Drawing No: FIGURE 5.4
Source Reference: RMT PROJ. 00-05121.03		Date: MAY 2009														
Project Manager: G. CARLI	Reviewed By: E. STAHL	Designed By:	Drawn By: C. JACOBI													
Scale: 1:100	Project No: 056394-04	Report No: 002	Drawing No: FIGURE 5.4													



LEGEND

AREA BOUNDARY	PREVIOUS SOIL SAMPLE LOCATION
SHORELINE	PREVIOUS SOIL BORING LOCATION
RAILWAY	PREVIOUS TEST PIT
FENCELINE	PREVIOUS SEDIMENT SAMPLE LOCATION
VEGETATION	EXISTING GROUNDWATER MONITORING WELL LOCATION
PROPOSED MONITORING WELL LOCATION	PREVIOUS GROUNDWATER SAMPLE LOCATION
PROPOSED SOIL BORING LOCATION	PREVIOUS STAFF GAUGE LOCATION (APPROXIMATE)
PROPOSED TEST PIT LOCATION	

SCALE VERIFICATION: THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

No	Revision	Date	Initial

Approved

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AREA 3 PROPOSED PHASE II SAMPLE LOCATIONS

PHASE II REMEDIAL INVESTIGATION WORK PLAN

FORMER PLAINWELL, INC MILL PROPERTY PLAINWELL, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:	RMT PROJ. 00-05121.03	Date:	MAY 2009
Project Manager:	G. CARLI	Reviewed By:	E. STAHL
Designed By:		Drawn By:	C. JACOBI
Scale:	1:100	Project No:	056394-04
Report No:	002	Drawing No:	FIGURE 5.5

FIGURE 6.1
RI/FS PROJECT SCHEDULE
PHASE II REMEDIAL INVESTIGATION WORK PLAN
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

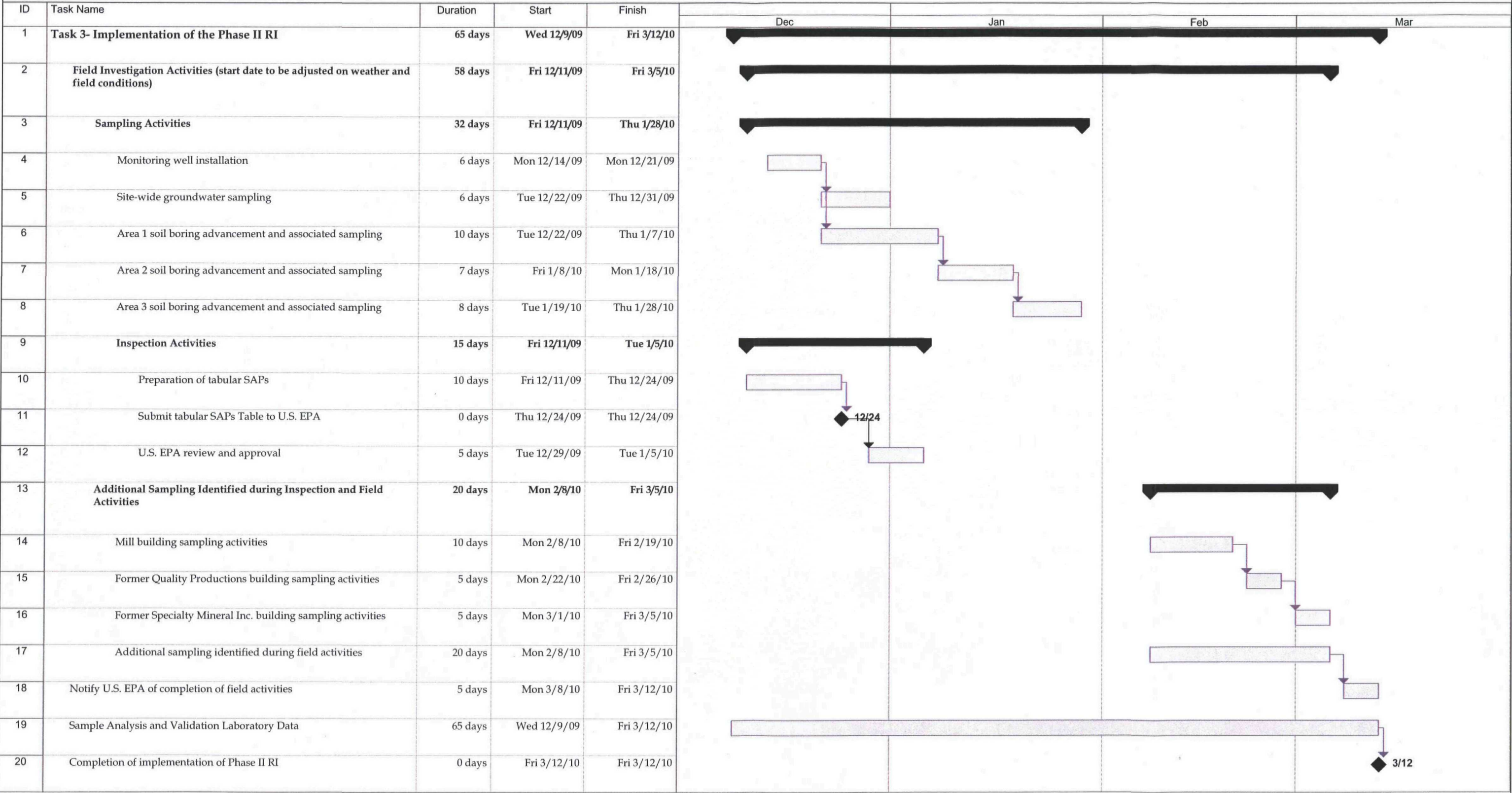


TABLE 5.1
AREA 1 - SUMMARY OF PROPOSED SAMPLING ACTIVITIES
PHASE II REMEDIAL INVESTIGATION
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

ACTIVITY/ LOCATION	PROPOSED ASSESSMENT LOCATION			RATIONALE FOR LOCATION SELECTION	SAMPLE/DATA COLLECTION DETAILS	SAMPLE MATRIX	FIELD SCREENING	LABORATORY PARAMETERS	SAMPLE LOCATIONS	INVESTIGATIVE SAMPLES	QUALITY CONTROL SAMPLES			TOTAL NUMBER OF SAMPLES
	DESIGNATION	TYPE	DEPTH (FT BGS)								TRIP BLANKS	FIELD DUPLICATES	MS/MSDS	
Soil Sampling														
Lagoon A through N	SB-106 through SB-133	Soil Boring	20	Confirmation and determination of paper waste	- Collection of surface soil samples - Sampling Program 1 ⁽⁵⁾	Soil	Visual and Olfactory Evidence of Impact and PID Screening	TCL VOCs TCL SVOCs TAL Metals SPLP Metals ⁽¹⁾ PCBs General Chemistry ⁽²⁾	28	112	--	12	6	130
Lagoon J (SB-2)	MW-13	Monitoring Well Vertical Aquifer Testing	20 (MW)	Determine the groundwater chemistry at the depth of the residual waste buried within the former lagoon area.					1	4	--	--	--	4
SGWB-2	MW-14	Monitoring Well	20	To determine background groundwater chemistry south of the lagoons					1	4	--	1	1	6
Former Secondary Clarifier	MW-15	Monitoring Well	20	To determine groundwater impacts associated with historical operations					1	4	--	--	--	4
Former Secondary Clarifier	SB-138 SB-139 SB-140 SB-141	Soil Boring	20	To determine extent of impact surrounding the former secondary clarifier					4	16	--	2	1	19
Aeration Basin	SB-137	Soil Boring	20	To determine extent of impact surrounding the aeration basin					1	4	--	--	--	4
Areas adjacent to the lagoons and Aeration Basin	SB-134 SB-135 SB-136	Soil Boring	20	To define historical morphing of the sizes of the lagoons and the aeration basin					3	12	--	1	--	13
North of Lagoon Area	SB-101 SB-102 SB-103 SB-104 SB-105	Soil Boring	20	To determine extent of potential paper waste north of the lagoon area adjacent to the Kalamazoo River					5	20	--	2	1	23
Wooded Area	SB-142 to SB-145 SS-100 to SS-107	Soil Boring/ Hand Auger	20	To confirm no impacts associated with historical operations within this area. Location of samples will be dependant based on inspection of the area.				- Collection of one surficial soil sample at all locations (SS and SB) - Sampling Program 2 ⁽⁶⁾ at proposed soil boring (SB) locations	12	20	--	2	1	23
Soil Physical Properties	SB-134 SB-135 SB-136 SB-137	Soil Boring/ Hand Auger	5	Collection of samples to determine the potential for vapor intrusion through native soil materials within the unsaturated zone	- Collection of one sample from what is field screened as native material within the vadose zone	Soil Physical Properties ⁽³⁾	5	5	NA	NA	NA	5		
Soil Sampling Total									61	201	0	20	10	231
Groundwater Sampling														
MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15	--	Groundwater Sample	--	To confirm on-Site groundwater quality	- Completion of a monitoring well inspection - Collection of groundwater levels and surface water levels (at associated staff gauges) - Collection of one groundwater sample per location	Groundwater	pH, Conductivity, Temperature, Dissolved Oxygen, ORP, Turbidity	TCL VOCs TCL SVOCs PCBs TAL Inorganics ⁽⁴⁾	8	8	3	1	1	13
MW-13	VA-1	Vertical Aquifer Sampling - Groundwater Samples	40	Complete vertical aquifer testing to determine groundwater conditions below the confining unit	- Collection of groundwater samples every 5 feet until the confining layer is reached or 40 feet bgs			TCL VOCs TCL SVOCs TAL Metals (filtered and unfiltered)	1	8	2	1	--	11
Groundwater Sampling Total									9	16	5	2	1	24

Notes:
Refer to Table 5.4 for Table Notes and Sampling Program Details

TABLE 5.2
AREA 2 - SUMMARY OF PROPOSED SAMPLING ACTIVITIES
PHASE II REMEDIAL INVESTIGATION
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

ACTIVITY/ LOCATION	PROPOSED ASSESSMENT LOCATION			RATIONALE FOR LOCATION SELECTION	SAMPLE/DATA COLLECTION DETAILS	SAMPLE MATRIX	FIELD SCREENING	LABORATORY PARAMETERS	SAMPLE LOCATIONS	INVESTIGATIVE SAMPLES	QUALITY CONTROL SAMPLES			TOTAL NUMBER OF SAMPLES
	DESIGNATION	TYPE	DEPTH (FT BGS)								TRIP BLANKS	FIELD DUPLICATES	MS/MSD	
Soil Sampling														
TP-17 and TP-18	SB-201 SB-202 SB-203 SB-204	Soil Boring	20	Confirmation of noted potential contamination associated with the former Transformer Pad	- Collection of one surfical soil samples from each location - Sampling Program 1 ⁽⁵⁾	Soil	Visual and Olfactory Evidence of Impact and PID Screening	TCL VOCs TCL SVOCs TAL Metals SPLP Metals ⁽¹⁾ PCBs General Chemistry ⁽²⁾	4	16	—	1	1	18
Mill Building Outflow Points	TBD	Hand Auger	2	Inspection and confirmation of capped outflows from the Mill Buildings	- Surface sampling only to be conducted if impacts are suspected from field screening				4*	4*	—	1*	1*	6*
Mill Building	TBD	Hand Auger	2	Inspection of soils around the perimeter of the Mill Buildings	- Surface sampling only to be conducted if impacts are suspected from field screening				5*	5*	—	—	—	5*
North East of Mill Building	MW-16	Monitoring Well	20	Installation of monitoring well to determine hydraulic connection with the Mill Race	- Sampling Program 1 ⁽⁵⁾ -Collection of one surficial soil sample				1	4	—	—	—	4
South Parking Lot	MW-17	Monitoring Well	20	Installation of monitoring well to determine hydraulic connection with the Mill Race	- Sampling Program 2 ⁽⁶⁾ - Collection of one surficial soil sample				1	4	—	1	—	5
South Parking Lot and BK5	TP-201 TP-202 TP-203	Test Pit	10	-Confirm the presence of fill material beneath the parking lot area -Determine potential impacts with historical activities	- Sampling Program 2 ⁽⁶⁾ - Collection of surface samples at all test pit locations				3	12	—	1	1	14
Soil Physical Properties	SB-201 SB-202	Soil Boring/ Hand Auger	5	Collection of samples to determine the potential for vapour intrusion through native soil materials within the unsaturated zone	- Collection of one sample from what is field screened as native material within the unsaturated, vadose zone			Soil Physical Properties ⁽³⁾	2	2	NA	NA	NA	1
Soil Sampling Total									20	47	0	4	3	53

TABLE 5.2

AREA 2 - SUMMARY OF PROPOSED SAMPLING ACTIVITIES
PHASE II REMEDIAL INVESTIGATION
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

ACTIVITY/ LOCATION	PROPOSED ASSESSMENT LOCATION			RATIONALE FOR LOCATION SELECTION	SAMPLE/DATA COLLECTION DETAILS	SAMPLE MATRIX	FIELD SCREENING	LABORATORY PARAMETERS	SAMPLE LOCATIONS	INVESTIGATIVE SAMPLES	QUALITY CONTROL SAMPLES			TOTAL NUMBER OF SAMPLES
	DESIGNATION	TYPE	DEPTH (FT BGS)								TRIP BLANKS	FIELD DUPLICATES	MS/MSD	
Groundwater Sampling														
MW-1, MW-3, MW-4, MW-5, MW-16 MW-17	—	Groundwater Sample	—	To Confirmation of on-Site groundwater chemistry	- Completion of a monitoring well inspection - Collection of groundwater and surface water levels (at associated staff gauges) - Collection of one groundwater sample per location	Groundwater	pH, Conductivity, Temperature, Dissolved Oxygen, ORP, Turbidity	TCL VOCs TCL SVOCs PCBs TAL Inorganics	6	6	3	1	1	11
MW-4	VA-2	Vertical Aquifer Testing- Groundwater Samples	40	Complete vertical aquifer testing to determine groundwater conditions below the confining unit	- Collection of groundwater samples every 5 feet until the confining layer is reached or 40 feet bgs			TCL VOCs TCL SVOCs TAL Metals (filtered and unfiltered)	1	8	2	1	—	11
Groundwater Sampling Total									7	14	5	2	1	22
Surface Water Sampling														
Mill Race and Kalamazoo River	SW-001 SW-002	Surface Water Sample	—	Confirm surface water quality of the Mill Race and Kalamazoo River related to mercury. Determine analytical data needed for data comparison.	- Collection of two surface water samples -Collection of surface water levels	Water	pH, Conductivity, Temperature, Dissolved Oxygen, ORP, Turbidity	Low level Mercury Methyl Mercury Hardness	2	2	—	1	—	3
Surface Water Sampling Total									2	2	0	1	0	3

*Refer to Table 5.4 for Table Notes and Sampling Program Details

TABLE 5.3
AREA 3 - SUMMARY OF PROPOSED SAMPLING ACTIVITIES
PHASE II REMEDIAL INVESTIGATION
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

ACTIVITY / LOCATION	PROPOSED ASSESSMENT LOCATION			RATIONALE FOR LOCATION SELECTION	SAMPLE/DATA COLLECTION DETAILS	SAMPLE MATRIX	FIELD SCREENING	LABORATORY PARAMETERS	SAMPLE LOCATIONS	INVESTIGATIVE SAMPLES	QUALITY CONTROL SAMPLES			TOTAL NUMBER OF SAMPLES		
	DESIGNATION	TYPE	DEPTH (FT BGS)								TRIP BLANKS	FIELD DUPLICATES	MS/MSD, MS/DUP			
Soil Sampling																
DG3 and DG4 (Area 3)	SB-301, SB-302	Soil Boring	20	Confirmation of impact noted in historical sampling	- Collection of one surface soil sample at each borehole location - Sampling Program 1 ⁽⁶⁾	Soil	Visual and Olfactory Evidence of Impact and PID Screening	TCL VOCs, TCL SVOCs TAL Metals SPLP Metals ⁽¹⁾ PCBs General Chemistry ⁽²⁾	2	8	—	1	1	10		
SGWB-10	MW-18	Monitoring Well	20		1				4	—	—	—	4			
SGWB-3	SB-321	Soil Boring	20		1				4	—	1	—	5			
Coal Pile Storage Area (Area 3C)	TP-308 TP-309 TP-310 TP-311 TP-312 TP-313 TP-314 TP-315	Test Pit	10	Confirmation of extent of coal impacts	- Collection a minimum of 5 surface soil samples - Sampling Program 2 ⁽⁶⁾				8	29	—	2	1	32		
No. 6 Fuel Oil Tank Area (Area 3D)	SB-303 SB-304 SB-305 SB-306 SB-307	Soil Boring	10	Confirmation of impacted soil removal activities	- Sampling Program 3 ⁽⁷⁾				5	20	—	3	1	25		
SGWA-5 (Area 3D)	MW-19	Monitoring Well	20	Confirmation of historical groundwater impacts	- Collection of one surficial soil sample- Sampling Program 2 ⁽⁶⁾				1	4	—	—	—	4		
Former Coal Tunnel (Area 3E)	SB-308 SB-309 SB-310 SB-311 SB-312	Soil Boring	10	Confirmation of potential contamination noted in historical sampling	- Collection a minimum of 3 surface samples - Sampling Program 2 ⁽⁶⁾				5	18	—	1	1	20		
Undeveloped Lands	TP-301 TP-302 TP-303 TP-304 TP-305 TP-306 TP-307	Test Pit	10	-Confirm the presence of fill material beneath the parking lot area -Determine potential impacts with historical activities	- Collection of surficial soil samples - Sampling Program 2 ⁽⁶⁾				7	28	—	2	1	31		
Soil Physical Properties (Undeveloped Lands)	TP-302	Soil Boring/ Hand Auger	5	Collection of samples to determine the potential for vapour intrusion through native soil materials within the unsaturated zone	- Collection of one sample from what is field screened as native material within the vadose zone			Soil Physical Properties ⁽³⁾	1	1	NA	NA	NA	1		
Soil Sampling Total									31	116	0	10	5	131		
Groundwater Sampling																
MW-2, MW-6, MW-7, MW-18, MW-19	—	Groundwater Sample	—	Confirmation of on-Site groundwater chemistry	- Completion of a monitoring well inspection - Collection of groundwater and surface water levels (at associated staff gauges) - Collection of one groundwater sample per location	Water	pH, Conductivity, Temperature, Dissolved Oxygen, ORP, Turbidity	TCL VOCs TCL SVOCs PCBs TAL Inorganics ⁽⁴⁾	5	5	2	1	1	9		
Groundwater Sampling Total									5	5	2	1	1	9		

Notes:
Refer to Table 5.4 for Table Notes and Sampling Program Details

TABLE 5.4
REMEDIAL INVESTIGATION APPROACH- NOTES
PHASE II REMEDIAL INVESTIGATION
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

- Notes:**
- (1) Soil samples for analysis of SPLP will be collected and placed on hold pending results of TAL metal analysis
- (2) General Chemistry - Nitrogen compounds and phosphorous
- (3) Soil Physical Properties- grain size analysis, dry bulk density, porosity, moisture content, fraction of organic carbon
- (4) TAL Inorganics- TAL Metals plus low level mercury, methly mercury, and cyanide
- (5) Sampling Program 1
- One surficial soil sample will be collected as indicted in Tables 5.1 to 5.3
 - One biased soil sample will be collected from what has been deemed fill material from a depth of 2 to 10 feet bgs based on field screening. If no impacts are noted, one soil sample will be collected from 0 to 2 feet above the interface between the fill and native material within the vadose zone
 - One soil sample from 0 to 2 feet below the observed impact will be collected. If no impact is observed the soil sample will be collected from 0 to 2 feet below the interface of the fill/ native material within the vadose zone
 - One soil sample will be collected from the vadose zone, 0 to 2 feet above the saturated zone.
- (6) Sampling Program 2
- One surficial soil sample will be collected as indicted in Tables 5.1 to 5.3
 - If no impact noted, a discrete soil sample will be collected from 0 to 2 feet abovebelow the interface of the vadose and saturated zone. If impact noted one soil sample will be collected within 2 to 10 feet bgs and a third sample collected from 0 to 2 feet above the interface of vadose and saturated zone
- (7) Sampling Program 3
- One surficial soil sample will be collected
 - One soil sample will be collected from the fill material which is expected to be at approximately depths of 2 to 10 feet bgs based on field screening methods. Soil borings not exhibiting any evidence of impact will be sampled at 0 to 2 feet above the interface of fill/native material within vadose zone
 - One soil sample will be collected from 0 to 2 feet below the observed contamination. If no evidence of impact is observed the soil sample will be collected from 0 to 2 feet below the interface of fill/native material within vadose zone
 - One soil sample will be collected from vadose zone at 0 to 2 feet above the saturated zone

* Sampling to be conducted if necessary, the noted number of locations are subject to change depending on field findings.

bgs - below ground surface

MS/MSDs - Matrix Spike/Matrix Spike Duplicates

SPLP - Synthetic Precipitation Leaching Procedure

TAL - Target Analyte List

TCL - Target Compound List

VAS- Vertical Aquifer Sampling

VOC - Volatile Organic Compound

SVOC - Semi-Volatile Organic Compound

TBD - To be determined

PCBs - Polychlorinated Biphenyls

ORP - Oxidation-Reduction Potential

PID - Photoionization Detector

NA - Not Applicable

- Surficial Soil sample will be collected from 0 to 1 foot bgs. If non-soil materials are present (i.e., gravel fill or concrete slab) the soil sample will be collected from 0 to 1 foot below the non-soil material.
- Field Screening will consist of PID readings to determine the presence of undifferentiated volatile organic vapors, visual screening for lithologic changes, stained soils, residuals, and olfactory evidence of impacts
- Collect soil samples on a continuous basis at 2 feet intervals
- Collection of all samples as per Field Sampling Plan and Quality Assurance Project Plan including the references listed below
- Samples to be submitted on a regular turn around time
- All necessary MS/MSDS and Field Duplicates will be added where required
- Groundwater samples will be collected using low flow techniques
- VAS samples will be collected with a bailer and TAL Metals will filtered and unfiltered for metals analysis
- Test pit length is 5 to 10 feet

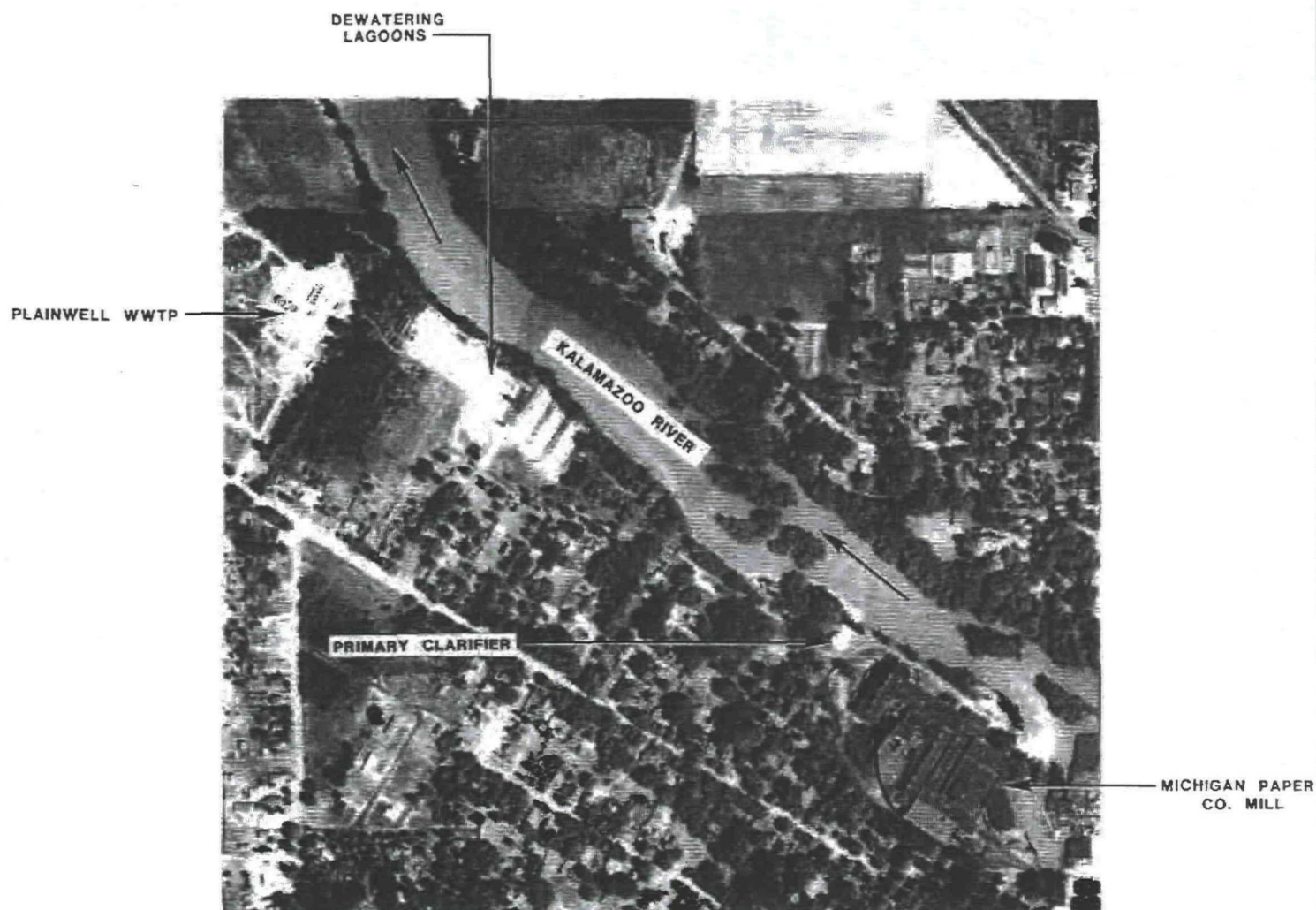
Field Sampling References:

<i>Sample Type</i>	<i>Reference Document</i>	<i>Procedure</i>
Soil Sampling with Direct Push Sampler	FSP	Standard Operating Procedure F-5
Surficial Soil Sampling	FSP	Standard Operating Procedure F-6
Excavation and Test Pits and Test Pit Soil Sampling	FSP	Standard Operating Procedure F-8
Photoionization Detector (PID) Screening	FSP	Standard Operating Procedure F-9
Monitoring Well Installation	FSP	Standard Operating Procedure F-15
Groundwater Sampling	FSP	Standard Operating Procedure F-11
Surface Water Sampling	FSP	Standard Operating Procedure F-16
Staff Gauge Installation and Measurement	FSP	Standard Operating Procedure F-10
Vertical Aquifer Sampling	FSP	Standard Operating Procedure F-17
Sample Handling and Analysis/ Quality Assurance	FSP/ QAPP	Section 4/ Section 4.4.4 (with reference to QAPP Worksheets)
Sample Labeling	FSP	Section 3.1
Chain-of-Custody Records	FSP	Section 3.3
Management of Investigation-derived Waste	FSP	Section 6.0
Field Physical Measurements/ Surveying	FSP	Section 5.0/ Section 5.1
Hand Auguring	FSP	Standard Operating Procedure F-6

APPENDIX A

AERIAL PHOTOGRAPHS

FIGURE 48



KALAMAZOO RIVER
STUDY GROUP
ALLIED PAPER INC. / PORTAGE CREEK /
KALAMAZOO RIVER SUPERFUND SITE

DESCRIPTION OF
THE CURRENT SITUATION

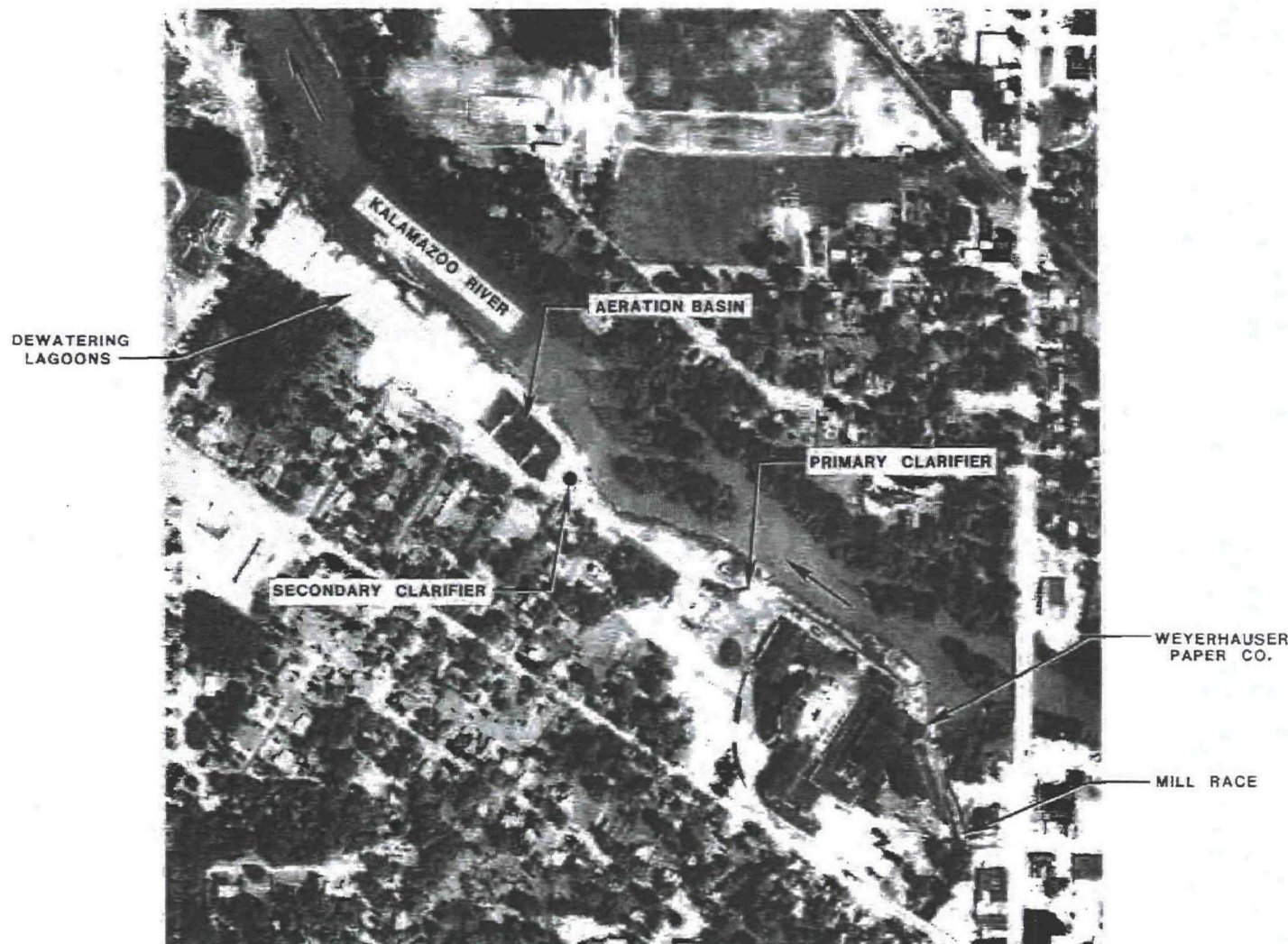
1955 AERIAL PHOTOGRAPH
SIMPSON PLAINWELL PAPER COMPANY

DRAFT



BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & GEOSCIENTISTS

FIGURE 50



KALAMAZOO RIVER
STUDY GROUP
ALLIED PAPER INC. / PORTAGE CREEK /
KALAMAZOO RIVER SUPERFUND SITE

DESCRIPTION OF
THE CURRENT SITUATION

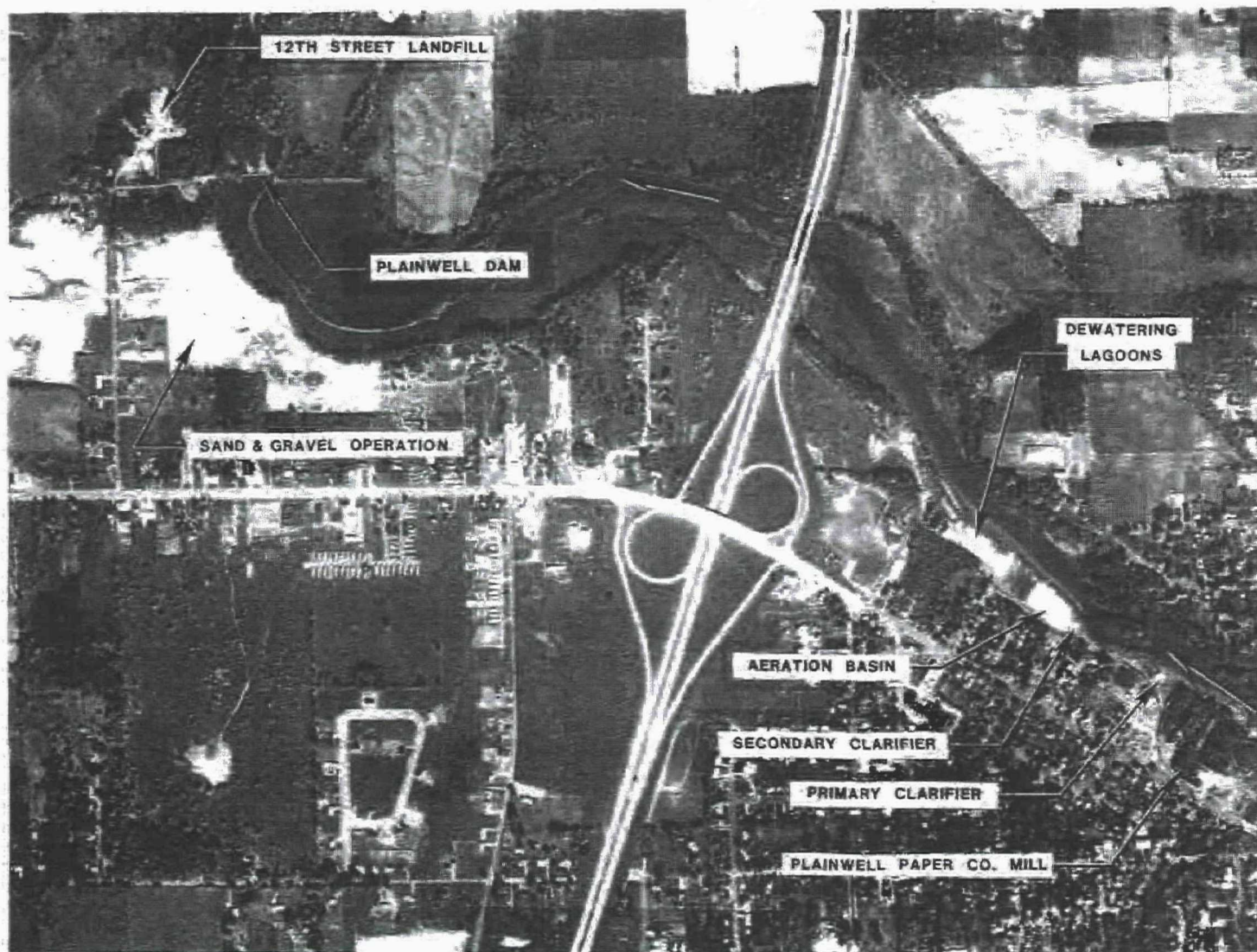
1967 AERIAL PHOTOGRAPH
SIMPSON PLAINWELL PAPER COMPANY

DRAFT



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ENGINEERS & GEOSCIENTISTS

FIGURE 51



KALAMAZOO RIVER
STUDY GROUP

ALLIED PAPER INC. / PORTAGE CREEK /
KALAMAZOO RIVER SUPERFUND SITE

DESCRIPTION OF
THE CURRENT SITUATION

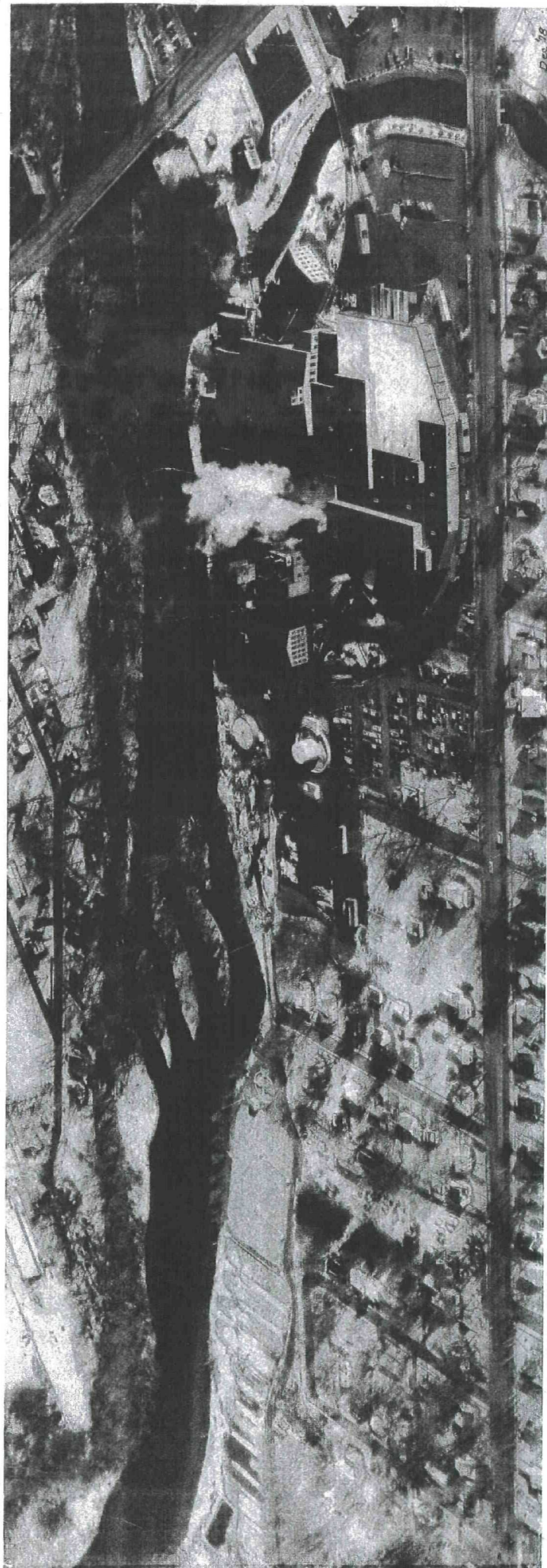
1974 AERIAL PHOTOGRAPH
SIMPSON PLAINWELL PAPER COMPANY
AND 12TH STREET LANDFILL

DRAFT



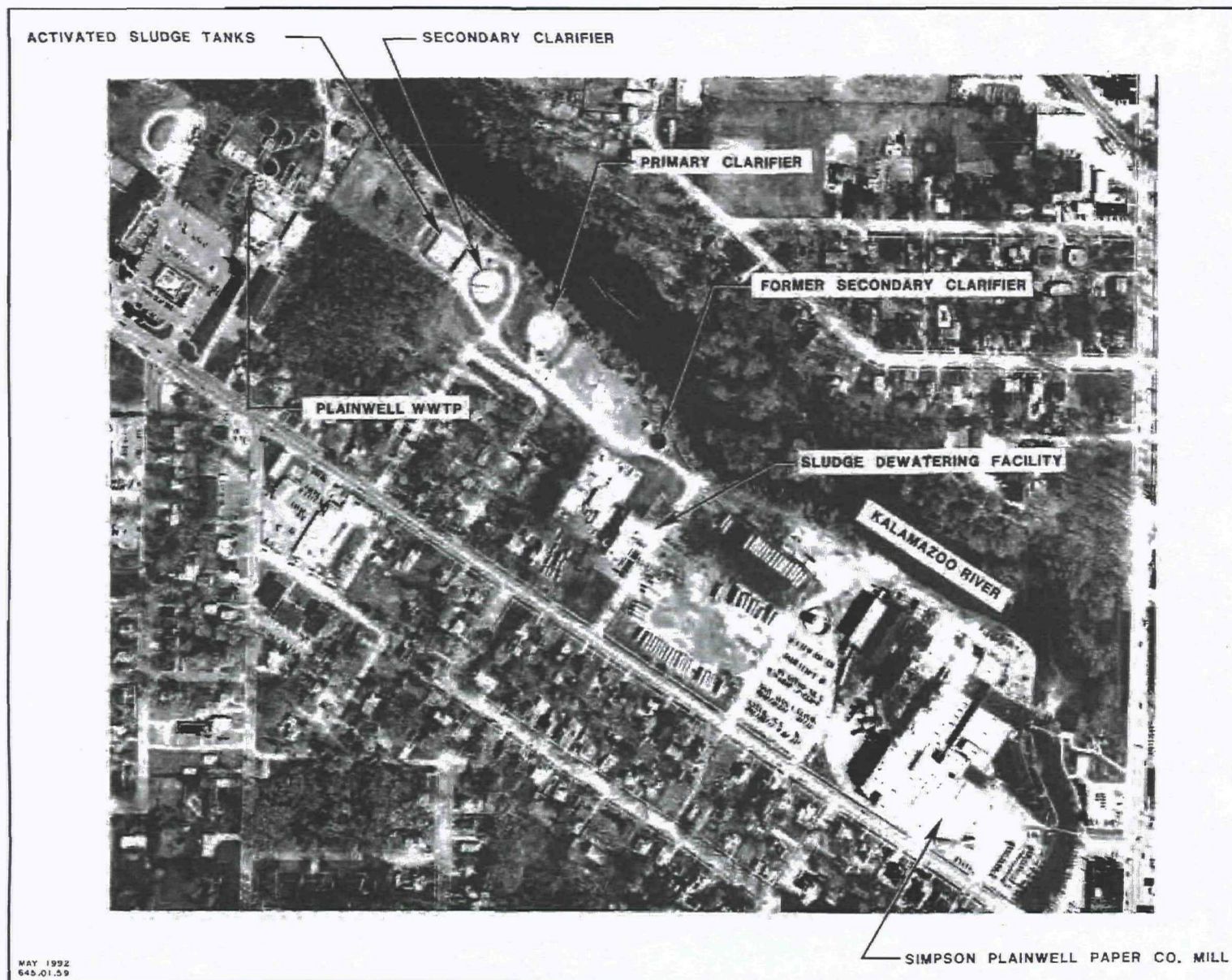
BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & GEOSCIENTISTS

MAY 1992
642,01,59



Dec 18

FIGURE 54



KALAMAZOO RIVER
STUDY GROUP
ALLIED PAPER INC. / PORTAGE CREEK /
KALAMAZOO RIVER SUPERFUND SITE

DESCRIPTION OF
THE CURRENT SITUATION

1991 AERIAL PHOTOGRAPH
SIMPSON PLAINWELL PAPER COMPANY

DRAFT



BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & GEOLOGISTS













APPENDIX B

HISTORICAL BOREHOLE LOGS




APPENDIX B

STRATIGRAPHIC INFORMATION
AREA 1 – FORMER WASTEWATER LAGOON AREA

LAGOON A

Date Start/Finish: 06/07/94 / 06/07/94 Drilling Company: Mateco Driller's Name: Bob Dreyer Drilling Method: Hollow Stem Auger Bit Size: N/A-in. Auger Size: 3.25-in Rig Type: CME-45A Spoon Size: N/A-in. Hammer Weight: N/A-lb Height of Fall: N/A-in.	Northings: Easting: Borehole Depth: 18 ft. Ground Surface Elev.: 725.9 ft. Geologist: David W. Lay	Boring No.: SPL-13 Site: Simpson Painwell Mtn Client: Allied Paper Inc./Portage Creek/ Kalamazoo River Superfund Site
---	--	--

DEPTH	ELEVATION	Sample Run Number	Sample/Int./Type	Blows/8 In	N	Recovery (ft)	PIB (ppm)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
Ground Surface	725.9 ft.											
		558008		3							4 layer dark brown SILT some fine sand and rootlets loose damp (TOPSOIL)	
	725	558007		4	8	1.5					Brown fine SAND some medium to coarse sand little silt loose moist (FILL)	Cement/bentonite grout backfill to 18.0
				1	2	0.8						
				1	2	0.8						
5				4	12	1.3					Grading wet	
	720			8								
				10	22	1.4						
10				5	10	1.4						
	715			9	13	1.4						
				4	8	1.2					1 layer black COAL ASH	
15		558008		4							Brown/grey fine SAND and grey PAPER FIBERS loose wet	



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Remarks:

Boring filled with bentonite upon completion

Saturated Zones

Date / Time	Elevation	Depth

Client:

Allied Paper, Inc./Portage Creek/
Kalamazoo River Superfund Site

Boring No. SPL-13

Total Depth = 18 ft.

Site:

Simpson Palmwell Mfg.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In	N	Recovery (ft)	PIQ (ppm)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
70		558008		4	8	L2						
		558009		5	17	L4					Black stained fine to medium SAND little coarse sand and fine gravel, trace silt loose wet	
				7								
				11							End of boring at 18.0 BGS	
20												
705												
25												
700												
30												
695												
35												



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Remarks.

Saturated Zones

Date / Time | Elevation | Depth

LAGOON C

Date Start/Finish: 08/08/94 / 08/08/94
 Drilling Company: Mateco
 Driller's Name: Bob Dreyer
 Drilling Method: Hollow Stem Auger
 Bit Size: N/A-in, Auger Size: 3.25-in
 Rig Type: CME-46A
 Spoon Size: N/A-in
 Hammer Weight: N/A-lb
 Height of Fall: N/A-in

Northing:
 Easting:
 Borehole Depth: 18 ft.
 Ground Surface Elev.: 722.0 ft.

Boring No. SPL-3

Site:
 Simpson Fairwell Mill

Client:
 Allied Paper Inc./Portage Creek/
 Kalamazoo River Superfund Site

Geologist: David W. Lay

DEPTH	ELEVATION	Sample Run Number	Sample/Int./Type	Blows/8 in	N	Recovery (ft.)	PIU (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
GS elevation 722.0 ft.										GROUND SURFACE	
	720			2 4 8 8	10	1.4	1.0			Dark brown SILT little fine sand trace clay and rootlets loose moist (TOPSOIL)	Cement/bentonite grout backfill to 18.0
				2 3 4 5	7	1.2	1.0			Brown fine to medium SAND little coarse sand trace silt loose moist (FILL)	
5				2 2 2 2	4	1.4	0.5				
	715			4 5 7 7	12	1.3	0.8			Black SILT and COAL ASH little fine to coarse sand and fine gravel, trace grey paper fibers loose moist (FILL)	
				4 3 2 2	5	1.1	2.9				
10				18 28 12 10	41	1.0	3.1			Black/grey COAL ASH and medium to coarse SAND some grey clay and paper fibers little fine gravel and fine sand loose wet (FILL)	
	710			4 8 8 10	14	1.1	3.9			Black medium to coarse SAND some fine angular gravel little silt loose wet (FILL)	
				4 5	12	0.8	4.8			Brick fragments at 13.5 BCS	
b										Black rounded fine to coarse SAND some fine gravel, trace clay loose, wet	

BL
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Remarks

Boring filled with bentonite upon completion

Saturated Zones

Date / Time	Elevation	Depth

- Total Depth = 78 ft.

 BLASLAND, BOUCK & LEE ENGINEERS & SCIENTISTS	Remarks.	Saturated Zones		
		Date / Time	Elevation	Depth

LAGOON C

Date Start/Finish: 08/07/94 / 08/07/94
 Drilling Company: Mateco
 Driller's Name: Bob Greyer
 Drilling Method: Hollow Stem Auger
 Bit Size: N/A-in. Auger Size: 3.25-in
 Rig Type: CME-45A
 Spoon Size: N/A-in.
 Hammer Weight: N/A-lb
 Height of Fall: N/A-in

Northings:
 Eastings:
 Borehole Depth: 18 ft.
 Ground Surface Elev.: 725.6 ft.

Geologist: David W. Lay

Boring No. SPL-4

Site:
 Simpson Palmwell Mill

Client:
 Allied Paper Inc./Portage Creek/
 Kalamazoo River Superfund Site

DEPTH	ELEVATION	Sample Run Number	Sample/Int./Type	Blows/B In	N	Recovery (ft)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
Ground Surface	725.6 ft									GROUND SURFACE	
725		S58010		2 2 3 4	5	L2				Brown fine SAND some silt and medium sand, little coarse sand loose damp (FILL).	
				4 4 4 4	8	L1				Grading to trace silt moist	
5				2 3 4 4	7	L5					
720				2 3 4 5	7	L2					
				4 5 7 8	12	L3					
10				5 10 15 17	25	L7					
715				12 29 17 30	48	L2				Grey silt some clay and paper fibers, little medium to coarse sand medium dense moist	
		S58011		10 29	80	0.4				Fine to medium SAND some coarse sand trace silt loose wet	
15											

Cement/bentonite
 grout backfill to
 18 0

B/L
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 ENGINEERS & SCIENTISTS

Remarks.

Boring filled with bentonite upon completion

Saturated Zones

Date / Time	Elevation	Depth

Client:

Allied Paper Inc./Portage Creek/
Kalamazoo River Superfund Site


Boring No. SPL-4

Total Depth = 18 ft

Site:

Simpson Palmwell Mill

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In	N	Recovery (ft)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
710				31 68	80	0.4				Black fine SAND and SILT little medium to coarse sand and coal slag loose wet	
		S56012		4 5 7 10	12	0.7				Grey/brown medium to coarse SAND some fine sand little fine gravel trace silt loose wet	
										End of boring at 18.0 BGS	
705											
700											
695											
690											
685											
680											
675											
670											
665											
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BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS


Remarks:

Saturated Zones		
Date / Time	Elevation	Depth

LAGOON D

Date Start/Finish: 08/08/94 / 08/08/94 Drilling Company: Mateco Driller's Name: Bob Dreyer Drilling Method: Hollow Stem Auger Bit Size: N/A-in Auger Size: 4.25-in Rig Type: CME-45A Spoon Size: N/A-in Hammer Weight: N/A-lb Height of Fall: N/A-in	Northing: Easting: Borehole Depth: 14 ft. Ground Surface Elev.: 721.4 ft. Geologist: David W. Lay	Boring No.: SPL-12 Site: Simpson Panwell M0 Client: Allied Paper Inc./Portage Creek/ Kalamazoo River Superfund Site
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DEPTH	ELEVATION	Sample Run Number	Sample/Int./Type	Blows/ft In	N	Recovery (ft)	PIG (ppm)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
as elevation 721.4 ft											GROUND SURFACE	
720			B 0 7 8	17	LO						Brown fine to medium SAND some coarse sand trace fine gravel, loose moist (FILL).	Cement/bentonite grout backfill to 140
			2 2 3 4	5	12							
5			2 3 4 4	7	0.5							
75					NR						Augered through cobbles.	
			8 10 11 12	21	0.8						Brown fine to medium SAND little coarse sand and fine gravel trace silt loose moist (FILL)	
10			10 10 10 10	20	LI						1" layer of brown SILT and CLAY	
70			3 5 7 11	12							Black stained rounded, medium to coarse SAND some fine gravel little fine sand loose wet	
15											End of boring at 140 BGS	

 BLASLAND, BOUCEY & LEE ENGINEERS & SCIENTISTS	Remarks: No analytical samples submitted from this boring. Boring filled with bentonite upon completion.	Saturated Zones		
		Date / Time	Elevation	Depth

LAGOON G

Date Start/Finish: 08/08/94 / 08/08/94 Drilling Company: Mateco Driller's Name: Bob Dreyer Drilling Method: Hollow Stem Auger Bit Size: N/A-in. Auger Size: 3.25-in Rig Type: CME-45A Spoon Size: N/A-in. Hammer Weight: N/A-lb Height of Fall: N/A-in	Northing: Easting: Borehole Depth: 12 ft. Ground Surface Elev.: 720.8 ft. Geologist: David W. Lay	Boring No.: SPL-11 Site: Simpson Painwell Mill Client: Allied Paper Inc./Portage Creek/ Kalamazoo River Superfund Site
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DEPTH	ELEVATION	Sample Run Number	Sample Int/Type	Blows/ft	N	Recovery (ft)	PtO (ppm)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
gs elevation 720.8 ft.											GROUND SURFACE	
720		558015		4 7 8 10	15	12	0.8				Brown fine to medium SAND little coarse sand trace silt loose, damp (FILL)	
				8 10 11 11	21	12	1.8					
5				10 12 13 14	28	13	2.1					
76				5 8 7 8	18	0.8	1.9				Grey fine to coarse SAND some silt trace gravel dense moist Brown medium to coarse SAND some silt loose moist Grey fine SAND and SILT some coarse sand and fine gravel dense moist Brown medium SAND some coarse sand and fine gravel little silt loose moist	
				3 4 4 5	8	1.5	2.7					
10		558016		4 4 8 7	10	1.3	2.1				Black fine SAND and SILT some coal ash little coarse sand and fine gravel, loose wet Grey CLAY and PAPER FIBERS, soft wet Black COAL ASH Brown/gray medium to coarse SAND rounded little fine sand and gravel trace silt loose wet End of boring at 12.0 BGS	
		558017										
15												

 BLASLAND BUCK & LEE ENGINEERS & SCIENTISTS	Remarks: Boring filled with bentonite upon completion	Saturated Zones		
		Date / Time	Elevation	Depth

LAGOON H

Date Start/Finish: 06/08/94 / 06/08/94 Drilling Company: Mateco Driller's Name: Bob Dreyer Drilling Method: Hollow Stem Auger Bit Size: N/A-in. Auger Size: 3.25-in. Rig Type: CME-45A Spoon Size: N/A-in. Hammer Weight: N/A-lb Height of Fall: N/A-in	Northing: Easting: Borehole Depth: 15 ft. Ground Surface Elev.: 721.0 ft. Geologist: David W. Lay	Boring No.: SPL-10 Site: Simpson Painwell Mill Client: Allied Paper Inc./Portage Creek/ Kalamazoo River Superfund Site
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DEPTH	ELEVATION	Sample Run Number	Sample/in./Type	Blows/6 in	N	Recovery (ft)	PTD (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
721.0 ft										GROUND SURFACE	
720			4 5 5 8	10	13					Brown/grey SILT and fine to medium SAND trace paper fibers loose damp (FILL) 1 layer black CLAY and PAPER FIBERS. Brown fine SAND little medium to coarse sand and silt loose moist (FILL) Brown SILT some fine to medium sand trace grey paper fibers loose moist (FILL) Black stained fine SAND and SILT trace coal fragments and gravel loose moist Grades to wet	Cement/bentonite grout backfill to 15.0
5			5 5	0.5							
75			3 3	0.8							
			3 8 13 18	18	12						
			5 8 8 8	12	NR						
10											
70			5 8 7 10	13	NR						
			3 4 4 5	8	15					Black/grey fine to medium SAND little coarse sand trace silt loose wet 2' layer coarse sand and gravel	
15											

 BLASLAND, BOUCK & LEE ENGINEERS & SCIENTISTS	Remarks: No analytical samples submitted from this boring. Boring filled with bentonite upon completion.	Saturated Zones		
		Date / Time	Elevation	Depth

LAGOON I

Date Start/Finish: 08/03/94 / 09/03/94 Drilling Company: Mateco Driller's Name: Bob Dreyer Drilling Method: Hollow Stem Auger Bit Size: N/A-in. Auger Size: 3.25-in Rig Type: CME-45A Spoon Size: N/A-in. Hammer Weight: N/A-lb Height of Fall: N/A-in	Northing: Easting: Borehole Depth: 80 ft. Ground Surface Elev.: 721.7 ft. Geologist: David W. Lay	Boring No.: SPL-9A Site: Simpson Palmwell Mill Client: Allied Paper Inc./Portage Creek/ Kalamazoo River Superfund Site
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/8 In	N	Recovery (ft)	PTD (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
<div style="text-align: right; padding-right: 5px;">gs elevation 721.7 ft.</div>										GROUND SURFACE	
720				2 3 3	8	0.8				Brown SILT some fine to coarse sand trace fine gravel loose damp Dark brown fine to medium SAND some silt trace paper fibers and coal slag loose moist Black COAL ASH loose, moist Brown fine SAND some silt little medium to coarse sand loose moist 2" layers of black coal ash and grey paper fibers at 51 and 5.5 BGS End of boring at 80 BGS	<div style="text-align: center;"> </div>
5				2 2 4	5	1.8					
75				3 3 4 5	7	1.1					
10											
70											
15											

 BLASLAND, BOUCK & LEE ENGINEERS & SCIENTISTS	Remarks: No analytical samples submitted from this boring. Boring filled with bentonite upon completion.	Saturated Zones <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 33%;">Date / Time</th> <th style="width: 33%;">Elevation</th> <th style="width: 33%;">Depth</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Date / Time	Elevation	Depth						
Date / Time	Elevation	Depth									

LAGOON I

Date Start/Finish: 08/03/94 / 08/03/94 Drilling Company: Mateco Driller's Name: Bob Dreyer Drilling Method: Hollow Stem Auger Bit Size: N/A-in. Auger Size: 3.25-in Rig Type: CMF-46A Spoon Size: N/A-in. Hammer Weight: N/A-lb Height of Fat: N/A-in	Northing: Easting: Borehole Depth: 7.5 ft. Ground Surface Elev: 7217 ft. Geologist: David W. Lay	Boring No.: SPL-88 Site: Simpson Painwell Mill Client: Allied Paper Inc./Portage Creek/ Kalamazoo River Superfund Site
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DEPTH	ELEVATION	Sample Run Number	Sample/Int./Type	Blows/ft In	N	Recovery (ft)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
720 ft										GROUND SURFACE	
720			1 3 4	4	LI					Brown fine SAND and SILT little medium to coarse sand trace fine gravel, loose moist	Cement/bentonite grout backfill to 7.5'
			1 WOH WOH	1	13					Grades to some fine gravel	
5			1 3 3	4	0.8					Brown/grey CLAY some fine to medium sand, trace paper fiber loose moist	
			1 3 3	4	0.8					Grey CLAY little black laminated paper fibers, salt moist	
7.5			4 4 20/0.2	24+	0.3					Brown/grey fine to coarse SAND little grey clay and silt loose wet	
										Black stained fine to medium SAND some coarse sand little silt loose wet	
										Auger refusal at 7.5 BGS	
10											
70											
15											

 BLASLAND, BODICK & LEE ENGINEERS & SCIENTISTS	Remarks: No analytical samples submitted from this boring. Boring filled with bentonite upon completion.	Saturated Zones		
		Date / Time	Elevation	Depth

LAGOON J

Date Start/Finish: 08/03/94 / 08/03/94
 Drilling Company: Mateco
 Driller's Name: Bob Dreyer
 Drilling Method: Hollow Stem Auger
 Bit Size: N/A-in. Auger Size: 3.25-in
 Rig Type: CME-46A
 Spoon Size: N/A-in
 Hammer Weight: N/A-lb
 Height of Fall: N/A-in

Northings:
 Eastings:
 Borehole Depth: 14 ft
 Ground Surface Elev.: 721.2 ft
 Geologist: David W. Lay

Boring No. SPL-2

Site:
 Simpson, Palwell M8

Client:
 Allied Paper Inc./Portage Creek/
 Kalamazoo River Superfund Site

DEPTH ELEVATION	Sample Run Number	Sample/In./Type	Blows/6 In	N	Recovery (ft)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
GS elevation 721.2 ft									GROUND SURFACE	
720	S58003		2 3 3 4	8	2.2				Brown fine to medium SAND some coarse sand and silt little fine gravel, loose moist	Cement/bentonite grout backfill to 14'0"
			3 3 3 3	8	1.1				Grading with no gravel	
5			1 WOH 1 1	1	0.8				2" layer fine SAND and SILT	
75			1 WOH 1 WOH	1	0.7				Light to dark grey CLAY little paper fibers, and fine to medium sand loose wet	
	S58004		WOH WOH WOH 1	WOH	1.7				2" layer of white CLAY Light to dark grey CLAY little paper fibers and fine to medium sand, loose wet	
10			1 10 11 12	21	1.8				Light grey PAPER FIBERS little clay soft wet (Hydrogen Sulfide odor)	
70	S58005		10 12 13 15	25	0.5				Black stained fine SAND trace silt loose wet	
15									End of boring at 14'0 BGS	

B/L
 BLASLAND, BUCK & LEE
 ENGINEERS & SCIENTISTS

Remarks

Boring filled with bentonite upon completion

Saturated Zones

Date / Time	Elevation	Depth

LAGOON K

Date Start/Finish: 05/08/94 / 06/08/94
 Drilling Company: Mateco
 Driller's Name: Bob Greyer
 Drilling Method: Hollow Stem Auger
 Bit Size: N/A-in. Auger Size: 4.25-in
 Rig Type: CME-45A
 Spoon Size: N/A-in.
 Hammer Weight: N/A-lb
 Height of Fall: N/A-in

Northings:
 Eastings:
 Borehole Depth: 10 ft.
 Ground Surface Elev: 719.0 ft.

Boring No. SPL-5

Site:
 Simpson Palmwell Mill

Client:
 Allied Paper Inc./Portage Creek/
 Kalamazoo River Superfund Site

Geologist: David W. Lay

DEPTH	ELEVATION	Sample Run Number	Sample/Int'l Type	Blows/6 In	N	Recovery (ft.)	PTD (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
719.0 ft.										GROUND SURFACE	
75				8 11 4 3	15	0.8				Brown SILT and fine SAND little medium to coarse sand and fine gravel, loose damp (FILL)	Cement/bentonite grout backfill to 10.0
5				1 2 2	3	0.3				Brown/black fine to medium SAND and COAL SLAG loose moist wood fragments in nose of spoon	
				1 1 1	2	NR				COAL SLAG	
				1 4 10 14	14	LB				Grey CLAY and PAPER FIBERS.	
70				4 8 10 10	18	0.8				Brown coarse SAND and fine GRAVEL little fine to medium sand and silt loose wet	
10										Brown rounded medium to coarse SAND and fine GRAVEL little fine sand trace silt loose moist	
										End of boring at 10.0 BGS	
706											
15											

B/L
 BLASLAND, BUCK & LEE
 ENGINEERS & SCIENTISTS

Remarks

No analytical samples submitted from this boring. Boring filled with bentonite upon completion

Saturated Zones

Date / Time	Elevation	Depth

LAGOON L

Date Start/Finish: 08/02/94 / 08/02/94
 Drilling Company: Mateco
 Driller's Name: Bob Dreyer
 Drilling Method: Hollow Stem Auger
 Bit Size: N/A-in. Auger Size: 3.25-in.
 Rig Type: CME-46A
 Spoon Size: N/A-in.
 Hammer Weight: N/A-lb.
 Height of Fall: N/A-in.

Northing
 Easting:
 Borehole Depth: 18 ft.
 Ground Surface Elev.: 720.0 ft.

Boring No: SPL-1

Site:
 Simpson Painwell Mill

Client:
 Allied Paper Inc./Portage Creek/
 Kalamazoo River Superfund Site

Geologist: David W. Lay

DEPTH	ELEVATION	Sample Run Number	Sample/Int'l Type	Blows/6 In	N	Recovery (ft)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
0	720.0 ft									GROUND SURFACE	
		S58000		1	2	10	1.1			Brown fine to medium SAND some silt little rootlets loose moist	Cement/bentonite grout backfill to 19.0
				2	1	NR				Grey CLAY little fine to medium sand trace paper fibers loose moist	
				WOR						White CLAY trace paper fibers loose moist	
5	715	S58001		WOR	WOR	0.8	2.1			Dark grey PAPER FIBERS little clay loose moist	
		S58002		14	14	7	2.0			Black stained fine SAND loose moist (FILL)	
				4	5	7				Grading wet	
10	710			4	4	4					
				4	4	4					
				4	4	4					
15	705			18	51	20	1.2				

B/B
 BLASLAND BUCK & LEE
 ENGINEERS & SCIENTISTS

Remarks

Boring filled with bentonite upon completion

Saturated Zones

Date / Time	Elevation	Depth

Total Depth - 18 ft.

Page: 2 of 2

LAGOON M

Date Start/Finish: 08/02/84 / 08/02/84
 Drilling Company: Mateco
 Driller's Name: Bob Dreyer
 Drilling Method: Hollow Stem Auger
 Bit Size: N/A-in. Auger Size: 3.25-in
 Rig Type: CME-45A
 Spoon Size: N/A-in.
 Hammer Weight: N/A-lb
 Height of Fall: N/A-in

Northing
 Easting
 Borehole Depth: 20 ft
 Ground Surface Elev.: 720.4 ft

Boring No. SPL-7
 Site:
 Simpson Painwell Mill

Client:
 Allied Paper Inc./Portage Creek/
 Kalamazoo River Superfund Site

Geologist: David W. Lay

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/8 In.	N	Recovery (ft)	PID (ppm)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
gs elevation 720.4 ft											GROUND SURFACE	
720			3 4 5 7	8	1.3	1.3					Brown fine to medium SAND some coarse sand little silt and gravel trace grey clay loose wet	Cement/bentonite grout backfill to 20.0'
			3 3 2 2	5	0.4	2.5					Grading to trace silt	
5	715		WOR WOR 1 1	1	0.8	2.8						
			1 1 1	1	0.8	3.0						
			WOH WOH 2 4	2	1.1	2.5					Light grey to black CLAY some paper fibers, loose wet	
10	710		3 4 8 8	10	0.8	1.3					White grading to grey CLAY little paper fibers, grading with fine sand loose wet	
			13 14 8 8	23	0.3	1.7					2 Black stained fine to coarse SAND loose wet	
			4 5	12	0.5	1.3					Brown/black medium to coarse SAND little angular gravel, clay and paper fibers, loose wet (FILL)	
15												

B/L
 BLASLAND BUCK & LEE
 ENGINEERS & SCIENTISTS

Remarks:

No analytical samples submitted from this boring. Boring filled with bentonite upon completion

Saturated Zones

Date / Time	Elevation	Depth

Client:

Allied Paper Inc./Portage Creek/
Kalamazoo River Superfund Site


Site:

Simpson Painwell Mill

Boring No. SPL-7

Total Depth = 20 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Inj/Type	Blows/6 In	N	Recovery (ft)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
75				7	12	0.5	13				
				4	12	0.7	24				
				4	10	1.0	25			Grey fine to medium SAND trace silt loose wet	
20	700									Grey fine SAND little medium sand and gravel loose wet End of boring at 200 BGS.	
25	695										
30	690										
35											



BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks.


Saturated Zones

Date / Time	Elevation	Depth

LAGOON N

Date Start/Finish: 08/03/94 / 08/03/94 Drilling Company: Mateco Driller's Name: Bob Dreyer Drilling Method: Hollow Stem Auger Bit Size: N/A-in. Auger Size: 3.25-in Rig Type: CME-45A Spoon Size: N/A-in. Hammer Weight: N/A-lb Height of Fall: N/A-in.	Northing: Easting: Borehole Depth: 12 ft. Ground Surface Elev.: 721.5 ft. Geologist: David W. Lay	Boring No.: SPL-8 Site: Simpson Palmwell Mill Client: Allied Paper Inc./Portage Creek/ Kalamazoo River Superfund Site
---	---	--

DEPTH	ELEVATION	Sample - Rug Number	Sample/Int./Type	Blows/ft N	Recovery (ft)	PTD (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
gs elevation 721.5 ft									GROUND SURFACE	
720			4 5 3 3	8	LI				Brown fine to medium SAND some silt little coarse sand and gravel loose moist	Cement/bentonite grout backfill to 12.0
			4 3 2 1	5	0.8				Brown fine to coarse SAND some fine gravel trace silt, loose wet	
5			WOH WOH I WOH	1	LO					
715			I WOH WOH WOH	WOH	0.8				Grey CLAY some paper fibers little fine coarse sand loose wet	
			WOH I I I	2	0.7				Grading with some coarse sand	
10			4 8 10 12	18	1.3				Grey CLAY trace paper fibers Black stained fine SAND little silt trace gravel loose wet	
710									End of boring at 12.0 BGS	
15										

 BLASLAND, BOLICK & LEE ENGINEERS & SCIENTISTS	Remarks: No analytical samples submitted from this boring. Boring filled with bentonite upon completion.	Saturated Zones		
		Date / Time	Elevation	Depth

Aeration Basin

Date Start/Finish: 06/08/94 / 06/08/94
 Drilling Company: Mateco
 Driller's Name: Bob Dreyer
 Drilling Method: Hollow Stem Auger
 Bit Size: N/A-in. Auger Size: 3.25-in
 Rig Type: CME-45A
 Spoon Size: N/A-in
 Hammer Weight: N/A-lb
 Height of Fall: N/A-in

Northings:
 Eastings:
 Borehole Depth: 8.0 ft.
 Ground Surface Elev.: 715.5 ft.

Boring No. SPL-8

Site:
 Simpson Painwell Mfg

Client:
 Allied Paper Inc./Portage Creek/
 Kalamazoo River Superfund Site

Geologist: David W. Lay

DEPTH	ELEVATION	Sample/ Run Number	Sample/Int/Type	Blows/ft	N	Recovery (ft)	PIG (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Boring Construction
										GROUND SURFACE	
7.5		S58013		4	38	0.7	3.1			Brown SILT and fine SAND little medium to coarse sand trace fine gravel loose damp (FILL)	Cement/bentonite grout backfill to 8.0'
		S58014		7	18	1.0	1.2			Brown fine to coarse SAND rounded trace silt and gravel loose, moist	
5				4	11	0.4	2.2			Red/brown oxidation staining Grading wet	
7.0										End of boring at 8.0 BGS	
10											
15											

BLASLAND, BUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:
 Boring filled with bentonite upon completion

Saturated Zones		
Date / Time	Elevation	Depth

Table F 1
Summary of Existing PCB Data in Soil⁽¹⁾
Former Wastewater Sludge Dewatering Lagoon and Aeration Basin Area

LOCATION	SAMPLE ID	SAMPLE INTERVAL (feet bgs)	MEDIA	TOTAL PCB CONCENTRATION (ng/kg)
Lagoon A	SPL 13	0 0 0 50	Overburden soil	<0 051 L
Lagoon A	SPL 13	0 5 1 0	Overburden soil	<0 051 U
Lagoon A	SPL 13	14 16	Residuals	0 11
Lagoon A	SPL 13	16 18	Underlying soil	0 091
Lagoon C	SPL 4	0 0 0 5	Overburden soil	<0 051 L
Lagoon C	SPL 4	12 14	Residuals	1 5 J
Lagoon C	SPL 4	16 18	Underlying soil	0 048 J
Lagoon G	SPL 11	0 0-0 50	Overburden soil	0 038 J
Lagoon G	SPL 11	10 10 5	Residuals	1 6 J
Lagoon G	SPL 11	10 5 12	Underlying soil	0 051 J
Lagoon J	SPL 2	0 0-0 5	overburden soil	0 040 J
Lagoon J	SPL 2	8 0 10	Residuals	0 2
Lagoon J	SPL 2	10 12	Underlying soil	0 025 J
Lagoon L	SPL 1	0 0 0 5	Overburden soil	<0 050 U
Lagoon L	SPL 1	4 0 6 0	Residuals	0 27 J
Lagoon L	SPL 1	6 0 8 0	Underlying soil	0 12 J
Aeration basin	SPL 6	0 0 0 50	Soil	0 27
Aeration basin	SPL 6	2 0-4 0	Soil	<0 052 L

Notes

⁽¹⁾ Samples collected by Blasland Bouck & Lee Inc (BBL 1996a)

bgs = below ground surface

J = the compound was positively identified The associated numerical value is an estimated concentration only

L = the compound was analyzed for but not detected The associated value is the compound's Quantitation Limit

Created by GLB 7/06

Checked by NIB 9/06



WELL CONSTRUCTION LOG

WELL NO MW-9

Page 1 of 1

Facility/Project Name Weyerhaeuser Mill Groundwater Investigation			Date Drilling Started 12/9/08		Date Drilling Completed 12/9/08		Project Number 5133 06				
Drilling Firm Mateco Drilling		Drilling Method Hollow Stem Auger		Surface Elev (ft) --		TOC Elevation (ft) ---		Total Depth (ft bgs) 18 0		Borehole Dia (in) 4 25	
Boring Location				Personnel Logged By SM/KGG Driller Gary Swift				Drilling Equipment CME 55LC			
Civil Town/City/or Village Plainwell		County Allegan		State MI		Water Level Observations While Drilling Date/Time 12/9/08 00 00 <input checked="" type="checkbox"/> Depth (ft bgs) 12.5 After Drilling Date/Time _____ Depth (ft bgs) _____					

SAMPLE		BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	COMMENTS
NUMBER AND TYPE	RECOVERY (/)							
1 SS	42	2 9 6 7		Topsoil Topsoil with organics				
2 SS	0	3 3 3 5	2	Sand Mostly coarse sand some medium sand little silt trace gravel Moist loose no odor Strong Brown (7 5YR 4/6) No sample recovery	SW			No recovery
3 SS	54	5 6 8 14	4	Sand Mostly coarse sand some silt few medium sand and trace gravel Moist loose no odor Strong Brown (7 5YR 4/4) Silt decreases with depth and fine sand increase Color change of the fine sands to Dark Reddish Brown (5YR 3/4)	SM			Driller reports lots of cobbles
4 SS	4	14 10 12 18	6	Sand Mostly coarse sand some medium sand few fine sand trace gravel Dry loose no odor Light Brown (7 5YR 6/3) No sample recovery				Stone n sample t p
5 SS	42	10 13 13 7	8					
6 SS	50	4 4 4 10	10					
7 SS	17	7 3 35 41	12	▽ Same as above becoming saturated at 12	SW			
8 SS	58	3 3 3 3	14					
9 SS	25	4 2 2 4	16					
			18	End of boring at 18 below ground surface				

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GPJ RMT CORP GDT 5133 06 1/27/09

Signature	Firm RMT INC 2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546
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Checked By J Overvoorde



WELL CONSTRUCTION LOG

WELL NO MW 10

Page 1 of 1

Facility/Project Name Weyerhaeuser Mill Groundwater Investigation			Date Drilling Started 12/10/08		Date Drilling Completed 12/10/08		Project Number 5133 06				
Drilling Firm Mateco Drilling		Drilling Method Hollow Stem Auger		Surface Elev (ft) —		TOC Elevation (ft) —		Total Depth (ft bgs) 18 5		Borehole Dia (in) 4 25	
Boring Location				Personnel Logged By SMKGG Driller Gary Swift				Drilling Equipment CME 55LC			
Civil Town/City/or Village Plainwell		County Allegan		State MI		Water Level Observations While Drilling Date/Time 12/10/08 00 00 ▽ Depth (ft bgs) 13 After Drilling Date/Time _____ Depth (ft bgs) _____					

SAMPLE		BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	COMMENTS
NUMBER AND TYPE	RECOVERY (%)							
1 SS	75	4		Topsoil Topsoil with organics				
		4		Sand Mostly medium sand some fine sand trace gravel Loose dry no odor Reddish Brown (5YR 5/4)				
		4		Lens of gray silty clay				
		4	2					
2 SS	50	4		Coarse sand increases with depth	SW			
		4						
		5						
		5	4					
3 SS	42	4		Lens of black medium sand with some gravels				
		5						
		5						
		5	6					
4 SS	4	4		Clay Mostly Gray clay some silt little medium sand trace gravel	CL ML			
		4						
		4						
		4	8					
5 SS	63	3		Fill Mostly medium sand trace silt No odor loose White				
		3		Color changes to Black				
		3		Brck fragments				
		3	10	Sand Mostly fine sand little gravel Loose dry no odor Reddish Brown (5YR 4/4)				
6 SS	21	6						
		10		Becomes moist with little silt and trace gravels and color changes to Yellowish Red (5YR 4/6)	SP			
		12						
		9	12					
7 SS	54	5		Gravel Mostly gravel some coarse sand trace silt Saturated loose no odor Very Pale Brown (10YR 8/4)				
		5						
		5						
		5	14					
8 SS	25	2						
		2						
		4						
		5			SW			
		5	16	Same as above				
9 SS	42	3						
		3						
		4						
		6						
		6	18					
				End of boring at 18 5 below ground surface				

Driller reports cobbles wh le drilling

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GPJ RMT CORP GDT 5133 06 1/27/09

Signature	Firm RMT INC 2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546
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WELL CONSTRUCTION LOG

WELL NO MW-11

Page 1 of 1

Facility/Project Name Weyerhaeuser Mill Groundwater Investigation			Date Drilling Started 12/10/08		Date Drilling Completed 12/10/08		Project Number 5133 06				
Drilling Firm Mateco Drilling		Drilling Method Hollow Stem Auger		Surface Elev (ft) ---		TOC Elevation (ft) -		Total Depth (ft bgs) 14 0		Borehole Dia (in) 4 25	
Boring Location				Personnel Logged By SM/KGG Driller Gary Swift				Drilling Equipment CME 55LC			
Civil Town/City/or Village Plainwell		County Allegan		State MI		Water Level Observations While Drilling Date/Time 12/10/08 00 00 <input checked="" type="checkbox"/> Depth (ft bgs) 8 5 After Drilling Date/Time _____ Depth (ft bgs) _____					

SAMPLE		BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	COMMENTS
NUMBER AND TYPE	RECOVERY (/)							
1 SS	63	4 5 5 7		Topsoil Topsoil with trace gravels				
				Fill Mostly medium sand some coarse sand little gravel Gray (7 5YR 6/1) Color change to Strong Brown (7 5YR 4/6) with some silt				
2 SS	100	2 3 3 5	2	Fill Mostly gravel some coarse sand Dry loose no odor Black (7 5YR 2 5/1)				
3 SS	33	3 3 3 3	4	Clay Mostly clay some silt Dry low plasticity no odor Greenish Gray (GLEY2 6/1)	CL ML			
4 SS	50	2 3 5 7	6	Sand increases with depth Color change to Gray (7 5YR 5/1) Sand Mostly fine sand little medium sand trace gravel No odor loose moist Light Brown (7 5YR 6/4) Lens of Black (10YR 2/1) fine sand with no odor				
5 SS	21	12 5 5 3	8	Gravels increase with depth with trace silt Saturated with color change to Reddish Yellow (7 5YR 6/6)	SW			
6 SS	33	2 3 3 6	10	Color change to light brown (7 5YR 6/4)				
7 SS	21	12 5 5 5	12	Sand Mostly coarse sand some gravel trace silt Saturated loose no odor Black (7 5YR 2 5/1)	SW			
			14	End of boring at 14 below ground surface				
			16					
			18					

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GP-J RMT CORP GDT 5133 06 1/27/09

Signature	Firm RMT INC 2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546
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Checked By J Overvoorde

Fax



WELL CONSTRUCTION LOG

WELL NO MW-12

Page 1 of 1

Facility/Project Name Weyerhaeuser Mill Groundwater Investigation			Date Drilling Started 12/9/08		Date Drilling Completed 12/9/08		Project Number 5133 06				
Drilling Firm Mateco Drilling		Drilling Method Hollow Stem Auger		Surface Elev (ft) ---		TOC Elevation (ft) ---		Total Depth (ft bgs) 14 0		Borehole Dia (in) 4 25	
Boring Location				Personnel Logged By SM/KGG Driller Gary Swift				Drilling Equipment CME 55LC			
Civil Town/City/or Village Plainwell		County Allegan		State MI		Water Level Observations While Drilling Date/Time 12/9/08 00 00 <input checked="" type="checkbox"/> After Drilling Date/Time 12/9/08 00 00 <input type="checkbox"/>				Depth (ft bgs) 7 5	

SAMPLE		BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	COMMENTS
NUMBER AND TYPE	RECOVERY (/)							
1 SS	83	3		Fill Mostly clay some silt little medium sand trace roots (organics) Moist stiff high plasticity no odor Brown (7 5YR 5/3)				
2 SS	17	2	2	Fill Mostly medium sand some coarse sand little fine sand Moist loose no odor Strong Brown (7 5YR 5/8)				
		2		Fill Paper residual waste Gray (GLEYS 6/)				
		2		Small amount of paper residuals with trace gravels and woody material Color change to Black (10YR 2/1)				
3 SS	4	3	4					
		3		Mostly clay some silt few paper residuals				
4 SS	75	4	6	Sand Mostly medium sand trace fine sand Moist loose no odor Brown (7 5YR 5/2)				
		5		Color grades to Brownish Yellow (10YR 6/8)				
		8		Saturated	SP			
5 SS	38	2	8	Trace coarse sand				
		2		Sand Mostly medium sand trace coarse and fine sand				
		3	10	Saturated loose slight odor Black (10YR 2/1)				
6 SS	54	2						
		3			SP			
		4	12					
7 SS	0	1						
		1						
		1						
		1	14	End of boring at 14 below ground surface				
			16					
			18					

Driller reports lots of cobbles Poor sample recovery

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GPJ RMT CORP GDT 5133 06 12/7/09

Signature	Firm RMT INC 2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546
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Checked By J Overvoorde



WELL CONSTRUCTION LOG

WELL NO MW-8

Page 1 of 1

Facility/Project Name Weyerhaeuser Mill Groundwater Investigation			Date Drilling Started 12/10/08		Date Drilling Completed 12/10/08		Project Number 5133 06				
Drilling Firm Mateco Drilling		Drilling Method Hollow Stem Auger		Surface Elev (ft) —		TOC Elevation (ft) —		Total Depth (ft bgs) 12 5		Borehole Dia (in) 4 25	
Boring Location				Personnel Logged By SM/KGG Driller Gary Swift				Drilling Equipment CME 55LC			
Civil Town/City/or Village Plainwell		County Allegan		State MI		Water Level Observations While Drilling Date/Time 12/10/08 00.00 <input checked="" type="checkbox"/> Depth (ft bgs) 7.5 After Drilling Date/Time _____ Depth (ft bgs) _____					

SAMPLE		BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	COMMENTS
NUMBER AND TYPE	RECOVERY (%)							
1 SS	79	4 4 4 4		Topsoil Mostly medium sand some coarse sand and organic material Dark Brown (7 5YR 3/3)	SW SM			Poor recovery due to rock in tip
2 SS	21	5 3 3 3	2	Sand Mostly medium sand some fine sand trace silt and gravel Dry loose no odor Yellowish Red (5YR 4/6)				
3 SS	50	4 5 4 6	4	Sand Mostly coarse sand little gravel Dry loose no odor Brown (10YR 5/3)	SP			Poor sample recovery
4 SS	54	10 10 10 10	6	Fine sands increase with few black cinders				
5 SS	4	10 11 12	8	Sand Mostly coarse sand some fine sand and gravel Dry loose no odor Very Pale Brown (10YR 8/4)	SP			Poor sample recovery
6 SS	17	4 6 6 9	10	Gravels increase and becomes saturated				
				Rock in spoon tip				
			12	End of boring at 12 5 below ground surface				
			14					
			16					
			18					

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GPJ RMT CORP GDT 5133 06 12/27/09

Signature _____		Firm RMT INC 2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546	
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Checked By J Overvoorde

APPENDIX B

STRATIGRAPHIC INFORMATION
AREA 2 - MILL BUILDINGS AREA





fishbeck thompson carr & huber
engineers scientists architects constructors

Grand Rapids (616) 575 3824
Lansing (517) 627 1141
Kalamazoo (269) 375 3824
Farmington Hills (248) 324 2090

BOREHOLE LOG

BORING/WELL ID SB/TW-7

TOTAL DEPTH (ft) 15'

PROJECT Plainwell Paper Phase II ESA
SITE LOCATION Plainwell Michigan
PROJECT NO G06523
PROJECT MANAGER Steve Kimm, CPG
LOGGED BY Brad Peuler

START DATE 9 5 06
END DATE 9 5 06
TOC ELEV
GROUND ELEV
STATIC WATER LVL 7 45 BGS

DRILLING CO Great Lakes Geotechnical Services
DRILLER Dan & Tom Crandell
RIG TYPE 66 DT Geoprobe
METHOD OF DRILLING Direct Push
SAMPLING METHODS Macro Cores

NOTES Located In The Former Fill Area Soil and Groundwater Samples Collected for PNAs Phenols As Cd, Cr Cu Pb Hg Se and Zn

Static Water Level Page 1 of 1

DESCRIPTION	PID ppm	GRAPHIC LOG	DEPTH (ft bgl)	Static Water Level	Sample/ Recovery	Sample ID	Blow Counts	WELL CONSTRUCTION DETAIL
FILL Sand fine to medium grained with trace coarse Gravel and Coal/Ash/Slag fragments black, poorly sorted dry	0		0			PP 06-09-SB-7 (0-0.5') (I)&(D)	10'	Natural Collapse
Poor Recovery	0		2					
SAND fine to medium grained with fine Gravel Cobble fragments brown poorly sorted dry	4		4			PP 06-09-SB-7 (7-7.5') (I)	30'	1 PVC Risers
PEAT Clayey fibrous brownish gray moist	0		6			PP-06-09-TW-7 (8-13') (I)&(D)	30'	1 PVC Screen (10 slot)
SAND AND GRAVEL Sand medium to coarse grained with fine Gravel brown moderately sorted wet	0		8					
SAND medium to coarse grained brown well sorted wet	0		10					
	0		12					
	0		14					



fishbeck thompson carr & huber
engineers scientists architects constructors

Grand Rapids (616) 575 3824
Lansing (517) 627 1141
Kalamazoo (269) 375 3824
Farmington Hills (248) 324 2090

BOREHOLE LOG

BORING/WELL ID SB/TW 8

TOTAL DEPTH (ft) 15'

PROJECT Plainwell Paper Phase II ESA

SITE LOCATION Plainwell Michigan

PROJECT NO G06 23

PROJECT MANAGER Steve Kimm CPG

LOGGED BY Brad Peuler

START DATE 9 5 06

END DATE 9 5 06

TOC ELEV

GROUND ELEV

STATIC WATER LVL. 6.2 BGS

DRILLING CO Great Lakes Geotechnical Services

DRILLER Dan & Tom Crandell

RIG TYPE 66 DT Geoprobe

METHOD OF DRILLING Direct Push

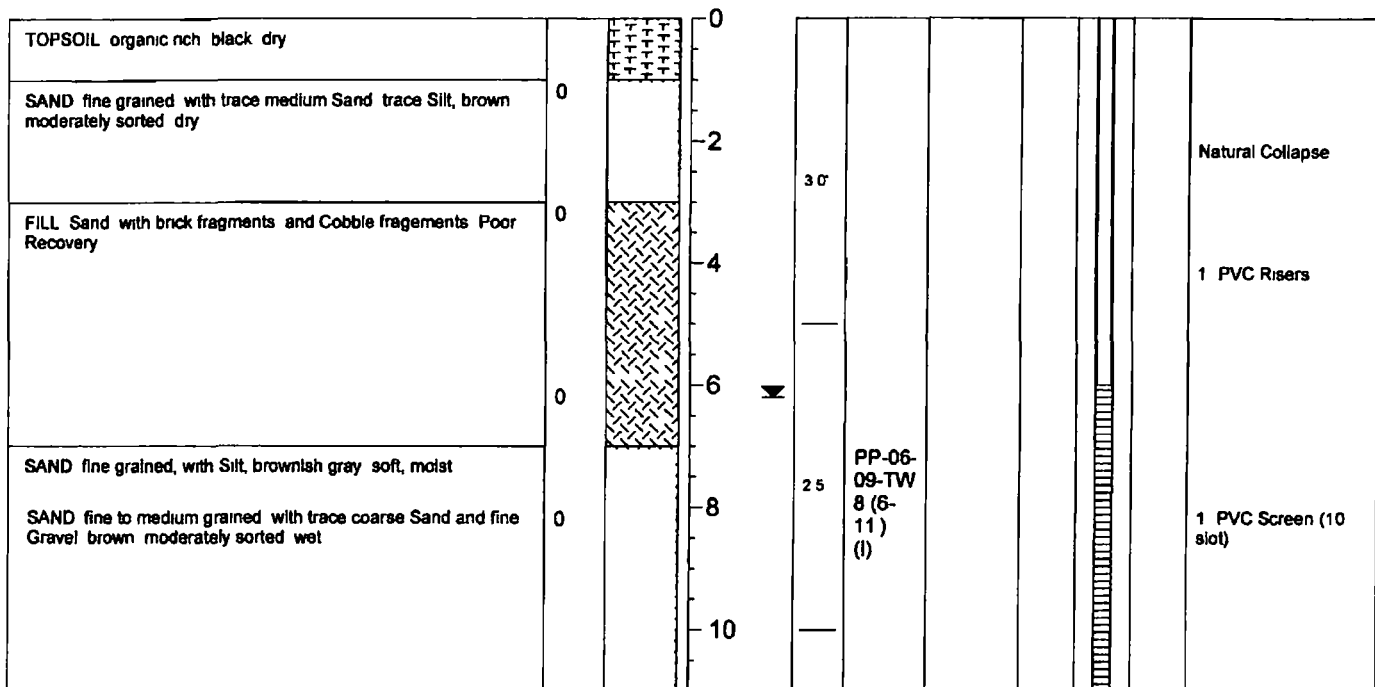
SAMPLING METHODS Macro Cores

NOTES Located North of the Mill and South of the River Groundwater Samples Collected for
8260 Plus VOCs PNAs As Cd Cr Cu Pb Hg Se and Zn

Static Water Level

Page 1 of 1

DESCRIPTION	PID ppm	GRAPHIC LOG	DEPTH (ft bgl)	Static Water Level	Sample/ Recovery	Sample ID	Blow Counts	WELL CONSTRUCTION DETAIL
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fishhook thompson carr & huber
engineers scientists architects constructors

Grand Rapids (616) 575 3824
Lansing (517) 627 1141
Kalamazoo (269) 375 3824
Farmington Hills (248) 324 2090

BOREHOLE LOG

BORING/WELL ID SB/TW-9

TOTAL DEPTH (ft) 15'

PROJECT Plainwell Paper Phase II ESA

SITE LOCATION Plainwell Michigan

PROJECT NO G06523

PROJECT MANAGER Steve Kimm CPG

LOGGED BY Brad Peulcr

START DATE 9 5-06

END DATE 9 5 06

TOC ELEV

GROUND ELEV

STATIC WATER LVL 5.4 BGS

DRILLING CO Great Lakes Geotechnical Services

DRILLER Dan & Tom Crandell

RIG TYPE 66 DT Geoprobe

METHOD OF DRILLING Direct Push

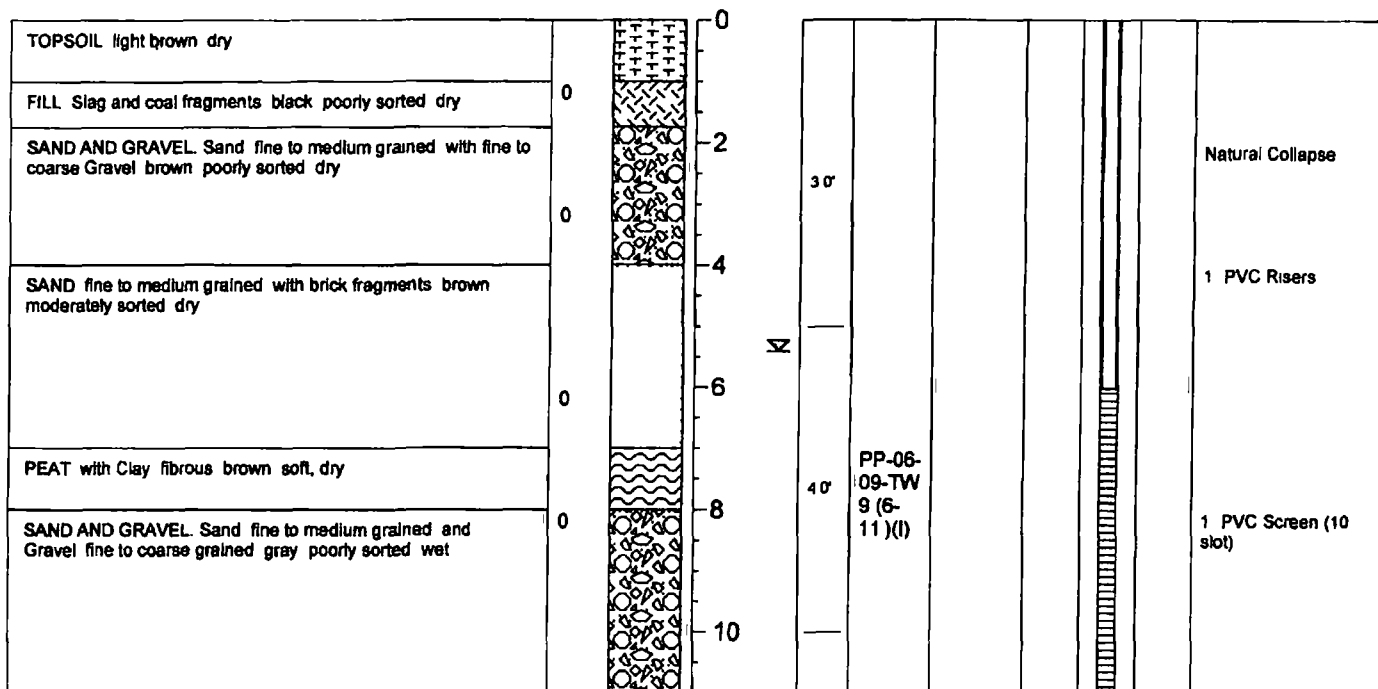
SAMPLING METHODS Macro Cores

NOTES Located North of the Mill and South of the River Groundwater Samples Collected for
8260 Plus VOCs PNAs As Cd Cr Cu Pb Hg, Se and Zn

Static Water Level

Page 1 of 1

DESCRIPTION	PID ppm	GRAPHIC LOG	DEPTH (ft. bgl)	Static Water Level	Sample/ Recovery	Sample ID	Blow Counts	WELL CONSTRUCTION DETAIL
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WELL CONSTRUCTION LOG

WELL NO MW 1

Page 1 of 1

Facility/Project Name Weyerhaeuser Mill Groundwater Investigation			Date Drilling Started 12/8/08		Date Drilling Completed 12/8/08		Project Number 5133 06				
Drilling Firm Mateco Drilling		Drilling Method Hollow Stem Auger		Surface Elev (ft) ---		TOC Elevation (ft) ---		Total Depth (ft bgs) 17 0		Borehole Dia (in) 4 25	
Boring Location				Personnel Logged By SM/KGG Driller Gary Swift				Drilling Equipment CME 55LC			
Civil Town/City/or Village Plainwell		County Allegan		State MI		Water Level Observations While Drilling Date/Time 12/8/08 00 00 <input checked="" type="checkbox"/> Depth (ft bgs) 11 5 After Drilling Date/Time --- Depth (ft bgs) ---					

SAMPLE		BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	COMMENTS
NUMBER AND TYPE	RECOVERY (%)							
				Asphalt				
				Gravel Road Gravel				
			2	Sand Mostly coarse sand some medium sand little gravel Moist loose no odor Strong Brown (7 5YR 4/6)	SW			Low sample recovery
			4	Low recovery same as above with trace amount of wood				
			6		SW			Low sample recovery
			8	Sand Mostly coarse sand some medium sand little gravel Wet loose no odor Brown (7 5YR 4/2)	SW			
1 SS	25	4						
		3						
		4						
		7						
		6						
2 SS	83	10		Sand Mostly coarse sand and gravel trace medium sand and silt Dry loose no odor Pale Brown (10YR 6/3)				
		11						
		13						
		11		Trace silt becomes present and grades to saturated in bottom 6	SP			
3 SS	42	11			SP			
		11						
		11						
		5						
4 SS	88	5		Gravel Mostly gravel little coarse sand Saturated loose no odor				
		5						
		5						
		5			GP			
5 SS	50	7						
		7						
		6						
			18	End of boring at 17 below ground surface				

Signature

Firm

RMT INC

2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546 Fax

Checked By J Overvoorde

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GPJ RMT CORP GDT 5133 06 12/7/09

RMT**SOIL BORING LOG****BORING NO MW 1A**

Page 1 of 1

Facility/Project Name Weyerhaeuser Mill Groundwater Investigation		Date Drilling Started 12/8/08		Date Drilling Completed 12/8/08		Project Number 5133 06					
Drilling Firm Mateco Drilling		Drilling Method Hollow Stem Auger		Surface Elev (ft) —		TOC Elevation (ft) —		Total Depth (ft bgs) 6 0		Borehole Dia (in) 4 25	
Boring Location				Personnel Logged By SM/KGG Driller Gary Swift				Drilling Equipment CME 55LC			
Civil Town/City/or Village Plainwell		County Allegan		State MI		Water Level Observations While Drilling Date/Time After Drilling Date/Time				Depth (ft bgs) Depth (ft bgs)	

SAMPLE		RECOVERY (/)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	COMMENTS
NUMBER AND TYPE								
1	SS	79	2	2	Asphalt			
			2	2	Gravel/Road Gravel			
			4	4	Sand/Mostly coarse sand some medium sand little gravel Moist	SW		
			4	4	loose no odor Strong Brown (7 5YR 4/6)			
			4	2	Low recovery same sand as above with trace amount of wood			
2	SS	8	4	4		SW		
			5	5		SW		
			5	3		SW		
			3	4		SW		
3	SS	8	4	4				
			4	4				
			4	4				
			16	6				
				6	End of boring at 6 below ground surface Hit something hard Pull out and offset 3 NE			
				8				
				10				
				12				
				14				
				16				
				18				

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GPJ RMT CORP GDT 5133 06 1/27/09

Signature	Firm RMT INC 2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546	Fax
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Checked By J Overvoorde

RMT**WELL CONSTRUCTION LOG****WELL NO MW 2**

Page 1 of 1

Facility/Project Name Weyerhaeuser Mill Groundwater Investigation			Date Drilling Started 12/8/08		Date Drilling Completed 12/8/08		Project Number 5133 06		
Drilling Firm Mateco Drilling		Drilling Method Hollow Stem Auger		Surface Elev (ft) ---		TOC Elevation (ft) ---		Total Depth (ft bgs) 18 0	
Boring Location				Personnel Logged By SM/KGG Driller Gary Swift			Drilling Equipment CME 55LC		
Civil Town/City/or Village Plainwell		County Allegan		State MI		Water Level Observations While Drilling Date/Time 12/8/08 00 00 <input checked="" type="checkbox"/> Depth (ft bgs) 13 5 After Drilling Date/Time Depth (ft bgs) 			

SAMPLE NUMBER AND TYPE	RECOVERY (/)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	COMMENTS
1 SS	25	6 7 9 9		Fill Mostly medium sand some fine sand little coarse sand and trace gravel Loose moist no odor Black (10YR 2/1)				
2 SS	75	3 5 5 5	2	Fill Mostly coarse sand some medium sand little gravel trace fine sand and silt Dry loose no odor Brown (10YR 5/3) Fill Mostly coarse sand some medium sand trace fine sand coal fragments and gravel Moist loose no odor Black (10YR 2/10)				
3 SS	50	4 4 4 4	4	Sand Mostly coarse sand some medium sand trace fine sand and gravel Moist loose no odor Brown (7 5YR 4/4)				
4 SS	50	4 4 4 4	6		SW			
5 SS	50	2 4 5 5	8	Color grades to Brownish Yellow (10YR 6/6) Color grades to Strong Brown (7 5YR 4/6) Gravel decreases with depth Color change to Yellowish Brown (10YR 5/6)				
6 SS	54	6 6 8 7	10	Gravel Mostly gravel some coarse sand little medium sand Moist loose no odor Pale Brown (10YR 6/3)				
7 SS	58	10 12 13 11	12	Tip of sampler is saturated				
8 SS	42	4 6 3 7	14	Same as above with trace silt	GW			
9 SS	50	8 8 8 8	16	Color change to Brownish Yellow (10YR 6/8)				
			18	End of boring at 18 below ground surface				

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GPJ RMT CORP GDT 5133 06 12/7/09

Signature	Firm RMT INC 2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546
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Checked By J Overvoorde

RMT**WELL CONSTRUCTION LOG****WELL NO MW-3**

Page 1 of 1

Facility/Project Name Weyerhaeuser Mill Groundwater Investigation		Date Drilling Started 12/11/08	Date Drilling Completed 12/11/08	Project Number 5133 06	
Drilling Firm Mateco Drilling	Drilling Method Hollow Stem Auger	Surface Elev (ft) ---	TOC Elevation (ft) ---	Total Depth (ft bgs) 10 5	Borehole Dia (in) 4 25
Boring Location		Personnel Logged By SMKGG Driller Gary Swift		Drilling Equipment CME 55LC	
Civil Town/City/or Village Plainwell	County Allegan	State MI	Water Level Observations While Drilling Date/Time 12/11/08 00 00 <input checked="" type="checkbox"/> Depth (ft bgs) 4 After Drilling Date/Time _____ Depth (ft bgs) _____		

SAMPLE		BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	COMMENTS
NUMBER AND TYPE	RECOVERY (%)							
1 SS	21	3		Fill Poor recovery with large gravels some coarse sand and rock in spoon tip				
		3						
		3						
		3						
		2		Saturated				
2 SS	17	1						
		1						
		1						
		1						
		4		▽ No recovery due to loose soil of recent test pit				
3 SS	0	1						
		1						
		1						
		1						
		6						
4 SS	67	16		Sand Mostly coarse sand and gravel some medium and fine sand trace silt Loose saturated Black (10YR3/1)	SP SM			
		9						
		7		Changes to mostly coarse sand with little fine sand Grayish brown (10YR 5/2)				
		7		Changes back to black sand as above with slight odor				
		6		Sand Mostly medium sand some Gray clay and silt and little gravel Wet no odor Poor recovery	SP			
5 SS	25	9		Changes to a black sand with little silty clay and no odor				
		15						
		18						
			10	End of boring at 10 5 below ground surface				
			12					
			14					
			16					
			18					

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GPJ RMT CORP GDT 5133 06 1/27/09

Signature	Firm RMT INC 2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546
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RMT**WELL CONSTRUCTION LOG****WELL NO MW-4**

Page 1 of 1

Facility/Project Name Weyerhaeuser Mill Groundwater Investigation			Date Drilling Started 12/11/08		Date Drilling Completed 12/11/08		Project Number 5133 06		
Drilling Firm Mateco Drilling		Drilling Method Hollow Stem Auger		Surface Elev (ft) ---		TOC Elevation (ft) ---		Total Depth (ft bgs) 10 5	
Boring Location				Personnel Logged By SM/KGG Driller Gary Swift			Drilling Equipment CME 55LC		
Civil Town/City/or Village Plainwell		County Allegan		State MI		Water Level Observations While Drilling Date/Time 12/11/08 00 00 <input checked="" type="checkbox"/> Depth (ft bgs) 5 After Drilling Date/Time _____ Depth (ft bgs) _____			

SAMPLE		BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	COMMENTS
NUMBER AND TYPE	RECOVERY (/)							
1 SS	83	13 7 7 7		Fill Loose black soil with sand and gravel and little silt Dark Brown (10YR 2/2) White fine grained fill with black sand little black silt and brck fragments				
2 SS	21	2 2 2 2	2	Same as above with with Dark Grayish Brown (10YR 4/2) silt with gravel and brck fragments				Poor sample recovery
3 SS	54	2 2 2 3	4	Course sand and gravel some silt with brck and concrete fragments little coal fragments Dark Grayish Brown (10YR 4/2) Wet at 5				
4 SS	0	1 1 2 2	6					No sample recovery in split spoon
5 SS	25	1 1 2 6	8	Sand Mostly coarse sand some fine sand and gravel little silt Wet loose Yellow Brown (10YR 5/8)	SM			Poor recovery due to rock in tip
			10	End of boring at 10 5 below ground surface				
			12					
			14					
			16					
			18					

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GPJ RMT CORP GDT 5133 06 1/27/09

Signature	Firm RMT INC 2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546
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RMT**WELL CONSTRUCTION LOG****WELL NO MW-5**

Page 1 of 1

Facility/Project Name Weyerhaeuser Mill Groundwater Investigation			Date Drilling Started 12/11/08		Date Drilling Completed 12/11/08		Project Number 5133 06		
Drilling Firm Mateco Drilling		Drilling Method Hollow Stem Auger		Surface Elev (ft) —		TOC Elevation (ft) —		Total Depth (ft bgs) 12 5	
Boring Location				Personnel Logged By SM/KGG Driller Gary Swift			Drilling Equipment CME 55LC		
Civil Town/City/or Village Plainwell		County Allegan		State MI		Water Level Observations While Drilling Date/Time 12/11/08 00 00 <input checked="" type="checkbox"/> ▽ After Drilling Date/Time		Depth (ft bgs) 7 Depth (ft bgs)	

SAMPLE		BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	COMMENTS
NUMBER AND TYPE	RECOVERY (%)							
1 SS	75	6	6	Fill Mostly medium sand some fine sand little coarse sand and gravel Brown (7 5YR 4/6)				
2 SS	54	4	2	Fill Fine black sand some coal fragments with lenses of white sand with silt				
3 SS	17	2	4	Fill Mostly brick and concrete fragments some coal little brown sand and gravel Loose no odor Rock in spoon tip with crushed brick with more coal fragments than above				Poor recovery due to rock in spoon tip
4 SS	17	3	6	Sand Some black sand with gray silt and little brown sand Wet soft no odor Black (10YR 2/1)	SM			Poor sample recovery
5 SS	42	4	8	Sand Mostly coarse sand some gravel little fine sand and silt Yellow (2 5Y 8/6)	SM			
6 SS	38	3	10	Gravel Mostly gravel little coarse sand and silt Light Olive Brown (2 5YR 5/6)				
		11	12	End of boring at 12 5 below ground surface				
			14					
			16					
			18					

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GPJ RMT CORP GDT 5133 06 12/27/08

Signature	Firm RMT INC 2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546
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Checked By J Overvoorde

[illegible]1

[illegible]

2

SOIL BORING OR TEST PIT LOG

PROJECT LOCATION	Plainwell Mill	PROJECT NUMBER	00 05133 04
SOIL BORING ID	TP 3		
NORTHING / LATITUDE	347198 955	DATE / TIME STARTED	11/10/2008 16 20
EASTING/ LONGITUDE	12778836 49	DATE / TIME FINISHED	11/10/2008 16 40
SURFACE ELEVATION			
DRILLED BY		LOGGED BY	Nathan Weber
DRILLING COMPANY	Kessler Environmental		



[illegible]

DRILLING METHOD	DRILL RIG	BORING DIAMETER
<i>John. Webb</i>	<i>1/15/09</i>	<i>2/2/09</i>
SIGNED	DATE	CHECKED BY DATE

SOIL BORING OR TEST PIT LOG

PROJECT LOCATION	Plainwell Mill	PROJECT NUMBER	00 05133 04
SOIL BORING ID		TP 4	
NORTHING / LATITUDE	347229 677	DATE / TIME STARTED	11/11/2008 9 00
EASTING/ LONGITUDE	12778806 15	DATE / TIME FINISHED	11/11/2008 9 50
SURFACE ELEVATION			
DRILLED BY		LOGGED BY	Nathan Weber
DRILLING COMPANY		Kessler Environmental	

[illegible]



DRILLING METHOD	DRILL RIG	BORING DIAMETER
 SIGNED _____	1/15/09 DATE _____	 CHECKED _____
	DATE	DATE

[illegible]5



PROJECT LOCATION	Plainwell Mill	PROJECT NUMBER	00 05133 04
SOIL BORING ID		TP 6	
NORTHING / LATITUDE	347256 414	DATE / TIME STARTED	11/11/2008 10 30
EASTING/ LONGITUDE	12778791 42	DATE / TIME FINISHED	11/11/2008 10 40
SURFACE ELEVATION			
DRILLED BY		LOGGED BY Nathan Weber	
DRILLING COMPANY Kessler Environmental			



[illegible]

DRILLING METHOD	DRILL RIG	BORING DIAMETER
 SIGNED	1/15/09 DATE	 SIGNED

SOIL BORING OR TEST PIT LOG

PROJECT LOCATION	Plainwell Mill	PROJECT NUMBER	00 05133 04
SOIL BORING ID	TP 8		
NORTHING / LATITUDE	347261 801	DATE / TIME STARTED	11/10/2008 14 20
EASTING/ LONGITUDE	12778754 48	DATE / TIME FINISHED	11/10/2008 14 40
SURFACE ELEVATION			
DRILLED BY		LOGGED BY	Nathan Weber
DRILLING COMPANY	Kessler Environmental		



[illegible]

DRILLING METHOD	DRILL RIG	BORING DIAMETER
 SIGNED _____	1/15/09 DATE _____	 2/2/09 CHECKED _____ DATE _____



PROJECT LOCATION	Plainwell Mill	PROJECT NUMBER	00 05133 04
SOIL BORING ID		TP 9	
NORTHING / LATITUDE	347286 895	DATE / TIME STARTED	11/10/2008 13 50
EASTING/ LONGITUDE	12778690 42	DATE / TIME FINISHED	11/10/2008 14 00
SURFACE ELEVATION			
DRILLED BY		LOGGED BY	
Kessler Environmental		Nathan Weber	

[illegible]

DRILLING METHOD	DRILL RIG	BORING DIAMETER
 SIGNED	1/15/09 DATE	 2/2/09 CHECKED DATE



PROJECT LOCATION	Plainwell Mill	PROJECT NUMBER	00 05133 04
SOIL BORING ID		TP 11	
NORTHING / LATITUDE	347324 513	DATE / TIME STARTED	10/10/2008 10 40
EASTING/ LONGITUDE	12778622 88	DATE / TIME FINISHED	11/10/2008 11 00
SURFACE ELEVATION			
DRILLED BY		LOGGED BY	
Kessler Environmental		Nathan Weber	

[illegible]

DRILLING METHOD	DRILL RIG	BORING DIAMETER
<i>Split Spade</i>		
SIGNED <i>[Signature]</i>	DATE <i>1/15/09</i>	CHECKED <i>[Signature]</i> DATE <i>2/2/09</i>

SOIL BORING OR TEST PIT LOG

PROJECT LOCATION	Plainwell Mill	PROJECT NUMBER	00 05133 04
SOIL BORING ID		TP 13	
NORTHING / LATITUDE	347360 803	DATE / TIME STARTED	11/10/2008 9 30
EASTING/ LONGITUDE	12778557 66	DATE / TIME FINISHED	11/10/2008 10 00
SURFACE ELEVATION			
DRILLED BY		LOGGED BY	
Kessler Environmental		Nathan Weber	

[illegible]

DRILLING METHOD	DRILL RIG	BORING DIAMETER
		11

SIGNED 24th Feb 15/09 DATE

CHECKED 2/2/09
DATE

SOIL BORING OR TEST PIT LOG

PROJECT LOCATION	Plainwell Mill	PROJECT NUMBER	00 05133 04
SOIL BORING ID	TP 14		
NORTHING / LATITUDE	347376 515	DATE / TIME STARTED	11/10/2008 13 20
EASTING/ LONGITUDE	12778528 43	DATE / TIME FINISHED	11/10/2008 13 40
SURFACE ELEVATION			
DRILLED BY		LOGGED BY	Nathan Weber
DRILLING COMPANY	Kessler Environmental		

[illegible]

DRILLING METHOD	DRILL RIG	BORING DIAMETER
<i>Handwritten signature</i>	<i>Handwritten signature</i>	<i>Handwritten signature</i>
SIGNED	DATE	CHECKED
<i>1/15/09</i>	<i>2/2/09</i>	

SOIL BORING OR TEST PIT LOG

PROJECT LOCATION	Plainwell Mill	PROJECT NUMBER	00 05133 04
SOIL BORING ID		TP 15	
NORTHING / LATITUDE	347346 627	DATE / TIME STARTED	11/10/2008 9 00
EASTING/ LONGITUDE	12778533 34	DATE / TIME FINISHED	11/10/2008 9 22
SURFACE ELEVATION			
DRILLED BY		LOGGED BY	Nathan Weber
DRILLING COMPANY		Kessler Environmental	

[illegible]

DRILLING METHOD	DRILL RIG	BORING DIAMETER
<i>Rot. 266</i>	<i>1/15/08</i>	<i>2/2/08</i>
SIGNED	DATE	CHECKED

SOIL BORING OR TEST PIT LOG

PROJECT LOCATION	Plainwell Mill	PROJECT NUMBER	00 05133 04
SOIL BORING ID		TP 16	
NORTHING / LATITUDE	347373 02	DATE / TIME STARTED	11/12/2008 11 00
EASTING/ LONGITUDE	12778539 77	DATE / TIME FINISHED	11/12/2008 11 10
SURFACE ELEVATION			
DRILLED BY		LOGGED BY	Nathan Weber
DRILLING COMPANY		Kessler Environmental	

[illegible]

DRILLING METHOD	DRILL RIG	BORING DIAMETER
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SIGNED DATE 1/15/09

BORING DIAMETER

CHECKED _____ DATE 2/2/89

SOIL BORING OR TEST PIT LOG

PROJECT LOCATION	Plainwell Mill	PROJECT NUMBER	00 05133 04
SOIL BORING ID		TP 17	
NORTHING / LATITUDE	347225 796	DATE / TIME STARTED	11/12/2008 11 30
EASTING/ LONGITUDE	12778831 44	DATE / TIME FINISHED	11/12/2008 11 45
SURFACE ELEVATION			
DRILLED BY		LOGGED BY	Nathan Weber
DRILLING COMPANY		Kessler Environmental	

[illegible]

DRILLING METHOD	DRILL RIG	BORING DIAMETER
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SIGNED Krh. Zleh DATE 1/15/09

CHECKED 2/2/09
DATE

[illegible]18


SOIL BORING OR TEST PIT LOG

PROJECT LOCATION	Plainwell Mill	PROJECT NUMBER	00-05133 04
SOIL BORING ID	TP 19		
NORTHING / LATITUDE	347184 665	DATE / TIME STARTED	11/12/2008 14 20
EASTING/ LONGITUDE	12778865 83	DATE / TIME FINISHED	11/12/2008 14 40
SURFACE ELEVATION			
DRILLED BY		LOGGED BY	Jim/Hulchens
DRILLING COMPANY	Kessler Environmental		

[illegible]

DRILLING METHOD	DRILL RIG	BORING DIAMETER
1		1.1

SIGNED H.H. Eble DATE 1/15/09

CHECKED  2/4/09
DATE



PROJECT LOCATION: Plainwell Mill		PROJECT NUMBER: 00-05133.04	
SOIL BORING ID: TP-20			
NORTHING / LATITUDE: 347210.138		DATE / TIME STARTED: 11/12/2008 15:15	
EASTING/ LONGITUDE: 12778835.89		DATE / TIME FINISHED: 11/12/2008 15:45	
SURFACE ELEVATION:			
DRILLED BY:		LOGGED BY: Jim Hutchens	
DRILLING COMPANY: Kessler Environmental			

[illegible]

DRILLING METHOD	DRILL RIG	BORING DIAMETER
<i>H. H. 2400</i>		
SIGNED	DATE	CHECKED
<i>H. H. 2400</i>	<i>1/5/09</i>	<i>[Signature]</i>
		<i>2/2/09</i>

Photographic Log

Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
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Photo No. 1	Date 11/10/08	
Description TP-1		

Photo No. 2	Date 11/10/08	
Description TP-1 Saturated Soils from Bottom of Test Pit		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 3	Date 11/10/08		
Description TP-1 Sample at 5.5' bgs			

Photo No. 4	Date 11/10/08	
Description TP-2 Water in Bottom of Test Pit		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 5	Date 11/10/08		
Description TP-2 Sample at 6' bgs			

Photo No. 6	Date 11/10/08		
Description TP-3			

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 7	Date 11/10/08		
Description TP-3 Sample at 6.5' bgs			

Photo No. 8	Date 11/11/08	
Description TP-4 Buried concrete and rebar		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 9	Date 11/11/08		
Description TP-4 Buried concrete			

Photo No. 10	Date 11/11/08	
Description TP-4 Sample at 5' bgs		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 11	Date 11/11/08		
Description TP-5			

Photo No. 12	Date 11/11/08	
Description TP-5		

Photographic Log



Client Name:		Site Location:	Project No.:
Weyerhaeuser		Plainwell Mill – Plainwell, MI	00-05133.04
Photo No.	Date		
13	11/11/08		
Description TP-5 Sample at 5' bgs			

Photo No.	Date	
14	11/11/08	
Description Tp-5 Sample at 6' bgs		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 15	Date 11/11/08		
Description TP-6 Miscellaneous Broken Concrete, Rocks and Water Entering Test Pit			

Photo No. 16	Date 11/11/08		
Description TP-6 Miscellaneous Metal			

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 17	Date 11/11/08		
Description TP-6 Sample at 6' bgs			

Photo No. 18	Date 11/11/08	
Description TP-7 Water in Bottom of Test Pit		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 19	Date 11/11/08		
Description TP-7			

Photo No. 20	Date 11/11/08	
Description TP-7 Sample at 5.5' bgs		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 21	Date 11/10/08		
Description TP-8			

Photo No. 22	Date 11/10/08	
Description TP-8 Sample at 5' bgs		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 23	Date 11/10/08		
Description TP-9 Water in Bottom of Test Pit			

Photo No. 24	Date 11/10/08	
Description TP-9		

Photographic Log


Client Name:		Site Location:	Project No.:
Weyerhaeuser		Plainwell Mill – Plainwell, MI	00-05133.04
Photo No.	Date		
25	11/10/08		
Description TP-9 Sample at 6' bgs			

Photo No.	Date	
26	11/10/08	
Description TP-10 Miscellaneous Metal and Ash Materials in Excavation		

Photographic Log


Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 27	Date 11/10/08		
Description TP-10 Saturated soils from bottom of test pit			

Photo No. 28	Date 11/10/08	
Description TP-10 Sample at 5.5' bgs		

Photographic Log



Client Name:		Site Location:	Project No.:
Weyerhaeuser		Plainwell Mill – Plainwell, MI	00-05133.04
Photo No.	Date		
29	11/10/08		
Description TP-11 Water in Bottom of Test Pit			

Photo No.	Date	
30	11/10/08	
Description TP-11 Miscellaneous Ash and Slag Materials		

Photographic Log





Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 31	Date 11/10/08		
Description TP-11 Sample at 6' bgs			

Photo No. 32	Date 11/10/08	
Description TP-12		

Photographic Log

Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 33	Date 11/10/08		
Description TP-12			
Photo No. 34	Date 11/10/08		
Description TP-12 Sample from 6'-7' bgs			

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 35	Date 11/10/08		
Description TP-13			

Photo No. 36	Date 11/10/08	
Description TP-13 Sample at 6' bgs		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 37	Date 11/10/08		
Description TP-14			

Photo No. 38	Date 11/10/08	
Description TP-14 Miscellaneous Metal		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 39	Date 11/10/08		
Description TP-14 Sample at 5.5' bgs			

Photo No. 40	Date 11/10/08	
Description TP-15 Water in Bottom of Test Pit		

Photographic Log



Client Name:		Site Location:	Project No.:
Weyerhaeuser		Plainwell Mill – Plainwell, MI	00-05133.04
Photo No.	Date		
41	11/10/08		
Description TP-15 Sample from 6'-7' bgs			

Photo No.	Date	
42	11/12/08	
Description TP-16		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 43	Date 11/12/08		
Description TP-16 Sample at 5.5' bgs			

Photo No. 44	Date 11/12/08	
Description TP-17		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 45	Date 11/12/08		
Description TP-17 Water in Bottom of Test Pit			

Photo No. 46	Date 11/12/08	
Description TP-17 Sample at 7' bgs		

Photographic Log



Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 47	Date 11/12/08		
Description TP-18 Water in Bottom of Test Pit			

Photo No. 48	Date 11/12/08	
Description TP-18 Sample at 8' bgs		

Photographic Log


Client Name:		Site Location:	Project No.:
Weyerhaeuser		Plainwell Mill – Plainwell, MI	00-05133.04
Photo No.	Date		
49	11/12/08		
Description TP-19 Water in Bottom of Test Pit			

Photo No.	Date	
50	11/12/08	
Description TP-19 Sample from 8' bgs		

Photographic Log


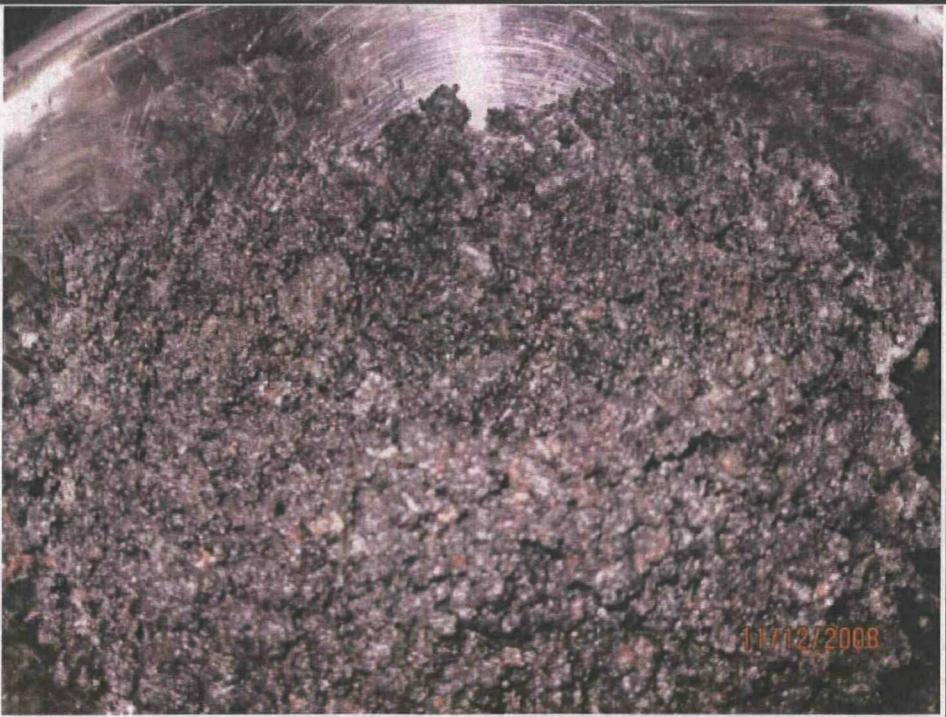
Client Name: Weyerhaeuser		Site Location: Plainwell Mill – Plainwell, MI	Project No.: 00-05133.04
Photo No. 51	Date 11/12/08		
Description TP-20			

Photo No. 52	Date 11/12/08	
Description TP-20 Sample at 6' bgs		



Date Completed 3/16/67 Driller Beehler Kaiser

INDIANAPOLIS • MISHAWAKA • LANSING

TEST

☒ PERMANENT

WELL LOG No. _____ CITY _____ Lat _____ Long _____

Owner Weyerhaeuser Co

Location

From Land Description ptor 1 to 112. #17

From Street or Road 1/2 from 311' N of 1 legn br and 3' S of d/cw

Job No 15867

County _____

Township Gen Plaines

Section 30

State Foreign

[illegible]

34 " Dia Hole Drilled by _____ Cable Tool _____ Rotary _____ Jetting
_____ Reverse Circulation _____ Bucket _____ Auger

is " Casing From " above ground to 30' ft below ground

" Screen Set From 36 to 51 ft Type Shutter Slot 135

Pumping Test 2150 GPM at 20 ft Pumping level After 0 hours

Date Completed May 21, 1967 Driller P. Wyatt

Job No. M15867

80' SE of Bldg #17 - 300' W

Ground

Level

Welded

XEROGRAPH

Bottom

26' 7"

4

18 " Black Steel Pipe

WT. 82 lbs. per foot

Fill used from Bottom Up;

36 silica Gravel 50 to 14 ft.

Native Gravel 14 to 3 ft.

Common Clay $\frac{3}{4}$ to 0 ft.

Depth ^{30'}

20 ft. of Stainless Steel

LAYNE Shutter Screen 18^{1/2} Dia.

Opening 155 (#3)

Silica Gravel Wall

13 Yds.

SS Bottom

Depth 50

Static Level 14'

Pumped	2250	GPM
--------	------	-----

at 20' pumping level

Drider P Wyatt

Date Finished 5-21-67

Not drawn to scale

All depths measured from Ground Level

FIRE WELL.

LAYNE GRAVEL WALL WELL NO. 6

for

WEYERHAEUSER COMPANY

PLAINWELL, MICH.

LAYNE NORTHERN CO., INC.

MISHAWAKA,

INDIANA

DRAWN BY

APPROVED BY

DATE _____

DRAWING No

WATER WELL RECORD

ACT 204 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL		Tow ship Name		Section		Section Number		Town		Range		Elev	
Allegan		Gun Plains		A 5 1/2 N 1/4		30		TWS		11		EWS	
2 DISTANCE ADJACENT TO INTERSECTIONS													
200' N of Allegan St and 20' E of Scott St													
3 OWNER OF WELL													
Plainwell Paper Company													
Address Plainwell, Michigan													
4 WELL DEPTH (completed) Date of Completion													
38' ft June 17, 1974													
5 <input type="checkbox"/> Cable tool <input type="checkbox"/> Rotary <input type="checkbox"/> Driven <input type="checkbox"/> Dug													
<input type="checkbox"/> Hollow rod <input type="checkbox"/> Jetted <input type="checkbox"/> Bored <input checked="" type="checkbox"/> RC													
6 USE <input type="checkbox"/> Domestic <input type="checkbox"/> Public supply <input checked="" type="checkbox"/> Industry													
<input type="checkbox"/> Irrigation <input type="checkbox"/> Agricultural <input type="checkbox"/> Commercial													
<input type="checkbox"/> Test Well <input type="checkbox"/>													
7 CASING Threaded <input type="checkbox"/> Welded <input checked="" type="checkbox"/> Height Above/Below													
D.M. 16 ft to 23 ft Depth S. face 1 ft													
Weight 62.5 lbs/ft													
Dive Shoe? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>													
8 SCREEN Johnson SS													
Type WW Dia 16"													
Slot/Gauge 055 Length 15'													
Set between 23 ft and 38 ft													
Fittings													
9 STATIC WATER LEVEL													
14 ft below land surface													
10 PUMPING LEVEL below land surface													
20 ft after 8 hrs pumping 1500 gpm													
ft after hrs pumping gpm													
11 WATER QUALITY in Parts Per Million													
Iron (Fe) Chlorides (Cl)													
Hardness Other													
12 WELL HEAD COMPLETION <input type="checkbox"/> In Approved P 1													
<input type="checkbox"/> Plugless Adapter <input checked="" type="checkbox"/> 12 Above Grade													
13 Well Grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No													
<input type="checkbox"/> Neat Cement <input checked="" type="checkbox"/> Bentonite <input type="checkbox"/>													
Depth From 18 ft to 38 ft													
14 Nearest Source of possible contamination													
Is it <input type="checkbox"/> Direct on <input type="checkbox"/> Type													
Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No													
15 PUMP <input checked="" type="checkbox"/> Not installed													
Manufacturer's Name													
Model Number HP Volts													
Length of Drop Pipe ft capacity G.P.M.													
Type <input type="checkbox"/> Submersible <input type="checkbox"/> Jet <input type="checkbox"/> Reciprocating													
16 Remarks elevation source of data etc													
ADDED INTO PERMITTER FILE NO													
CCT CL. BY													
A. F. BY													
17 WATER WELL CONTRACTOR'S CERTIFICATION													
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief													
Pearless-Midwest, Inc. 1250													
REGISTERED BUSINESS NAME REGISTRATION NO													
Address Granger, Indiana													
Signed R. J. Williams Date 8-23-74													
AUTHOR AND REPRESENTATIVE													



PEERLESS-MIDWEST, INC Water Supply Contractors
51265 BITTERSWEET ROAD / GRANGER INDIANA 46530 / 219 272 9050

TEST DRILLING REPORT

Well No. TW 88A City Plainwell County Allegan
Owner Plainwell Paper Company Township Gun Plaines
Section NW 1/4 SE 1/4 NE 1/4 of 30
Location _____ State Michigan
50' South of Kalamazoo River and 300'± West of Large Water Tower,
600'± North of Allegan Street

GRADE ELEVATION ABOVE MEAN SEA LEVEL — 721'± 2'

FORMATION	Top of Formation	Bottom of Formation	Thickness	Static Water Level	50% SIZE
Black Sand, Gravel, Brick and Rubbish	0 0'	6 5'	6 5'	—	—
Brown Med to Coarse Sand & Gravel	6 5'	11 0'	4 5'	9'	045
Brown Coarse to Med Gravel & Sand, Some Very Coarse and Some Stones	11 0'	29 0'	18 0'	9'	150
Brown Coarse to Very Coarse Gravel & Stones with Sand	29 0'	33 0'	4 0'	9'	300
Hard Gray Clay, Some Gravel	33 0'	38 0'	5 0'	—	—
Gray Very Dense Silt w/Very Fine Sand	38 0'	41 5'	3 5'	—	—
Hard Gray Clay, Some Gravel	41 5'	45 0'	3 5'	—	—

5-3/4 Dia hole drilled by hollow-stem auger Date completed 1/17/88

None casing set to _____ screen set from _____ to _____
_____ ft of _____ screen recommended from _____ to _____

Recommended screen slot size Tubular well Not Recommended Gravel Pack well Not Recommended

Water analysis Iron _____ PPM hardness _____ GPG PH _____

Job No. 6904 Site Geologist Joel A Annable
Driller Jon Cook



PEERLESS-MIDWEST, INC Water Supply Contractors
51255 BITTERSWEET ROAD / GRANGER INDIANA 46530 / 219 272 9050

TEST DRILLING REPORT

Well No. TW 88B City Plainwell County Allegan
Owner Plainwell Paper Company Township Gun Plaines
Section NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ of 30
Location Michigan State Michigan
100'± South of Kalamazoo River & 100'± West of Mill Race, 15' North
of Building #11 (#1 Beater Shop), and 20' East of Building #11A (Machine Shop)

GRADE ELEVATION ABOVE MEAN SEA LEVEL — 717'± 1'

FORMATION	Top of Formation	Bottom of Formation	Thickness	Static Water Level	50% SIZE
Black Sand, Gravel, Brick & Fill	0'	6'	6'	-	-
Brown Muddy Sand & Gravel	6'	11'	5'	7'±	-
Brown Medium to Coarse with Fine Gravel & Medium to Coarse Sand, Some Stones	11'	43'	32'	7'±	150
Hard Gray Clay, Some Gravel	43'	45'	2'	-	-

5-3/4 Dia hole drilled by hollow-stem auger Date completed 1/25/88

None casing set to 36" x 18" GWW with #4 Gravel screen set from 20 ft of 18" screen recommended from 23 to 43

Recommended screen slot size Tubular well Not Recommended Gravel Pack well 155"

Water analysis Iron _____ PPM hardness _____ GPG PH _____

Job No. 6904 Site Geologist Joel A Annable
Driller Cook Well Drilling

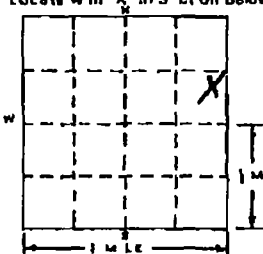
D67a 2/84

GEOLOGICAL SURVEY NO

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL		Township Name		Fraction	Section Number	Town Number	Range Number
County Alcona		Guthrie		N 1/4	51	14	11 E/W
Distance And Direction From Road Intersection 100' south on highway river & 100' W of 15th St, 1st north of Building #11 (1st corner from), and 20' East of Building #16 (2nd corner from)				3 OWNER OF WELL PLASTER PAINT COMPANY Address Plaster Paint Co Address same as Well Location? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Locate with X in Section Below				4 WELL DEPTH (completed) 45 ft			
Sketch Map 				5 <input type="checkbox"/> Cable tool <input type="checkbox"/> Rotary <input type="checkbox"/> Driven <input type="checkbox"/> Dug <input type="checkbox"/> Hollow rod <input type="checkbox"/> Auger <input type="checkbox"/> Jetted <input type="checkbox"/>			
2 FORMATION DESCRIPTION				6 USE <input type="checkbox"/> Domestic <input type="checkbox"/> Type I Public <input type="checkbox"/> Type III Public <input type="checkbox"/> Irrigation <input type="checkbox"/> Type IIa Public <input type="checkbox"/> Heat pump <input type="checkbox"/> Test Well <input type="checkbox"/> Type IIb Public <input type="checkbox"/>			
		THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	7 CASING Diameter <input type="checkbox"/> Steel <input type="checkbox"/> Threaded <input type="checkbox"/> Welded <input type="checkbox"/> Plastic <input type="checkbox"/> Height Above/Below Surface _____ ft Weight _____ lbs/ft Grouted Drill Hole Diameter in to _____ ft depth in to _____ ft depth in to _____ ft depth Drive Shoe <input type="checkbox"/> Yes <input type="checkbox"/> No			
Black Sand Gravel, Brick & Bill		6	6	8 SCREEN <input type="checkbox"/> Not Installed Type _____ Diameter _____ Slot/Gauge _____ Length _____ Set between _____ ft and _____ ft FITTINGS <input type="checkbox"/> K Packs <input type="checkbox"/> Lead Packer <input type="checkbox"/> Breme Check <input type="checkbox"/> Blank above screen _____ ft Oiled _____			
Brown Muddy sand & Gravel		5	11	9 STATIC WATER LEVEL 7 ft below land surface <input type="checkbox"/> Flow			
From Medium to Coarse with fine Gravel & Medium to Coarse Sand Some Gravel		32	43	10 PUMPING LEVEL below land surface _____ ft after _____ h pumping at _____ GPM _____ ft after _____ h pumping at _____ GPM			
Hard Gray Clay, some Gravel		~	45	11 WELL HEAD COMPLETION <input type="checkbox"/> Pitless adapter <input type="checkbox"/> 12 above grade <input type="checkbox"/> Basement offset <input type="checkbox"/> Approved pit			
				12 WELL GROUTED? <input type="checkbox"/> No <input type="checkbox"/> Yes From _____ to _____ ft <input type="checkbox"/> Near cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____ No. of bags of cement _____ Additives _____			
				13 Nearest source of possible contamination Type _____ Distance _____ ft Direction _____ Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No			
				14 PUMP <input type="checkbox"/> Not installed <input type="checkbox"/> Pump Installation Only Manufacturer's name _____ Model number _____ HP _____ Volts _____ Length of Drop Pipe _____ ft capacity _____ GPM TYPE <input type="checkbox"/> Submersible <input type="checkbox"/> Jet _____ PRESSURE TANK Manufacturer's name _____ Model number _____ Capacity _____ Gallons			
15 Remarks elevation source of data etc		16 WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief PERRILLIS-HUDWIST, INC. 1250 REGISTERED BUSINESS NAME REGISTRATION NO Address P O Box 26 51255 Litterswell Rd Grand Rapids, IN 46530 Signed _____ Date 5-13-88 AUTHORIZED REPRESENTATIVE					

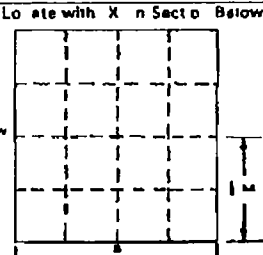
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GEOLOGICAL SURVEY COPY

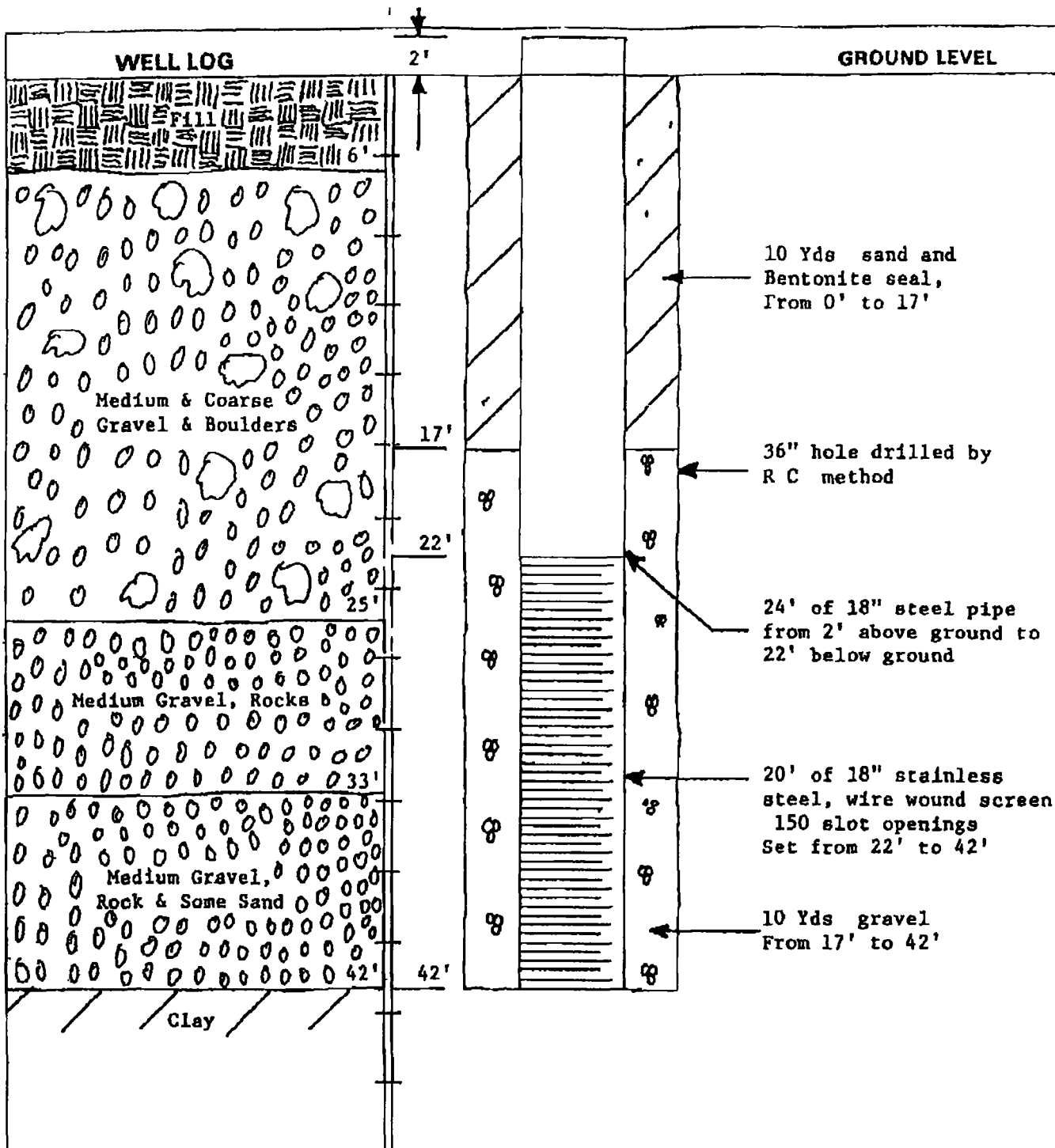
Authority:
Completion
PenaltyA 1288 PA 1978
Required
Conviction of a violation
of any provision is a
misdemeanor

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL			3 OWNER OF WELL		
County Allegan	Township Name Gun Plains	Fraction $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$	Section Number 30	Town Number (N/S)	Range Number (E/W)
Distance And Direction From Road Intersection 115' South of River, 100' West of Mill Race, 10' North of Building #11			Simpson Plainwell Paper Company Address Plainwell MI Address Same As Well Location? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
State Address & City of Well Location Locate with X in Section Below 			Date Completed 6/15/88 <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Replacement Well <input type="checkbox"/> Cable tool <input type="checkbox"/> Rotary <input type="checkbox"/> Down <input type="checkbox"/> Auger <input type="checkbox"/> Jettied <input checked="" type="checkbox"/> RC		
2 FORMATION DESCRIPTION			8 USE		
	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	<input type="checkbox"/> Domestic <input type="checkbox"/> Type I Public <input type="checkbox"/> Type II Public <input type="checkbox"/> Irrigation <input type="checkbox"/> Type Re Public <input type="checkbox"/> Heat pump <input type="checkbox"/> Test Well <input type="checkbox"/> Type III Public <input checked="" type="checkbox"/> FIRE		
Fill	0'	6'	7 CASING <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Threaded <input type="checkbox"/> Plastic <input type="checkbox"/> Welded 18 in to 22 ft depth Grouted Drill Hole Diameter 36 in to 17 ft depth Height Above/Below Surface 2 ft Weight 11 lbs/ft Drive Shoes <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Medium & Coarse Gravel & Boulders	6'	25'	8 SCREEN <input type="checkbox"/> Not Installed Type SSWW Diameter 18" Slot/Gauze 150 Length 20' Set between 22' ft and 42' ft FITTINGS <input type="checkbox"/> K Packs <input type="checkbox"/> Lead Packs <input type="checkbox"/> Bore Check <input type="checkbox"/> Blank above screen ft Other		
Medium Gravel, Rocks	25'	33'	9 STATIC WATER LEVEL 9 ft below land surface <input type="checkbox"/> Flow		
Medium Gravel, Rock & Some Sand	33'	42'	10 PUMPING LEVEL below land surface 26.5 ft after 8 hrs pumping at 300 GPM ft after hrs pumping at GPM		
Clay	-	-	11 WELL HEAD COMPLETION <input type="checkbox"/> Filler adapter <input checked="" type="checkbox"/> 14" above grade <input type="checkbox"/> Basement offset <input type="checkbox"/> Approved pit		
Stopped in Formation			12 WELL GROUTED? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes From 0' to 17 ft <input type="checkbox"/> Neat cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
			No. of bags of cement Additives		
			13 Nearest source of possible contamination Type Distance ft Direction Well d infected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No Well d well plugged? <input type="checkbox"/> Yes <input type="checkbox"/> No		
			14 PUMP <input type="checkbox"/> Not installed <input type="checkbox"/> Pump installation Only Manufacturer's name Model number HP Volts Length of Drop Pipe ft capacity GPM TYPE <input type="checkbox"/> Submersible <input type="checkbox"/> Jet PRESSURE TANK Manufacturer's name Model number Capacity Gallons		
15 Remarks elevation source of data etc Well Log Attached 17 Rig Operator's Name Russell Jones			WATER WELL CONTRACTOR'S CERTIFICATION This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief Peerless-Midwest, Inc. 1250 REGISTERED BUSINESS NAME REGISTRATION NO Address 51255 Blittswee Rd., Granger, IN 46500 Signed P. J. Williams Date 6/15/88 AUTHORIZED REPRESENTATIVE		

067d 12/88



City Plainwell State MI

Location 115' South of River, 100' West of Mill Race, 10' North of Building #11

County Allegan Twp Gun Plains Section 30

Test Capacity 3006 GPM Static Water Level 9 ft Pumping Level 26.5 ft

Specific Capacity 171.1 GPM/Ft D D

Date Drilled 6/15/88

Driller Rusty Jones

Job No 7169

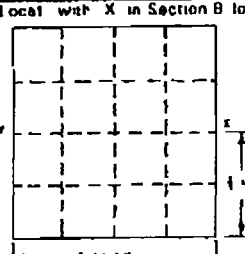
Well No FIRE WELL

SIMPSON PLAINWELL PAPER COMPANY
PLAINWELL, MICHIGAN

PEERLESS-MIDWEST, INC
Granger, Indiana

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL		Fraction		Section Number		Town Number		Range Number	
County Allegan		Township Name Gun Plainses		1/4 1/4 1/4		30		17 NS 17 EW	
Distance And Direction From Road Intersec on West Yard - 220' North of Allegan St Approx 265' West of Building 23				3 OWNER OF WELL Simpson-Plainwell Paper Co Address 200 Allegan Street Plainwell, MI 49080 Address Same As Well Locat on? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Street Address & City of Well Locat on Local with X in Section B low 				4 WELL DEPTH Data Completed FT 1 YEAR <input type="checkbox"/> New Well <input type="checkbox"/> Replacement Well					
Skel h m p WELL #5 RESCREENED				5 <input type="checkbox"/> Cable tool <input type="checkbox"/> Rotary <input type="checkbox"/> Driven <input type="checkbox"/> Dug <input type="checkbox"/> H B w d <input type="checkbox"/> A g <input type="checkbox"/> Jatted <input type="checkbox"/>					
				6 USE <input type="checkbox"/> Domestic <input type="checkbox"/> Type I Publ c <input type="checkbox"/> Type III Publ c <input type="checkbox"/> Irrigation <input type="checkbox"/> Type IIa Publ c <input type="checkbox"/> Heat p mp <input type="checkbox"/> Test Well <input type="checkbox"/> Type IIb Publ c <input type="checkbox"/>					
				7 CASING <input type="checkbox"/> Steel <input type="checkbox"/> Threaded <input type="checkbox"/> Height Above/Below <input type="checkbox"/> Plastic <input type="checkbox"/> Welded <input type="checkbox"/> Surface <input type="checkbox"/> ft in to <input type="checkbox"/> ft depth Weight <input type="checkbox"/> lbs /ft n to <input type="checkbox"/> ft depth Grouted Drill Hole Diameter <input type="checkbox"/> Yes in to <input type="checkbox"/> ft depth Drive Shoe <input type="checkbox"/> No in to <input type="checkbox"/> ft depth					
2 FORMATION DESCRIPTION		THICKNESS OF STRATUM		DEPTH TO BOTTOM OF STRATUM		8 SCREEN <input type="checkbox"/> Not Installed Type Cook SSW Diameter <input type="checkbox"/> Slot/Gauze 060 Length 20' Set between 22 ft and 42 ft FITTINGS <input type="checkbox"/> K-Packs <input type="checkbox"/> Lead Pack <input type="checkbox"/> 8 Iner Check <input type="checkbox"/> Blank above screen <input type="checkbox"/> ft. Other <input type="checkbox"/>			
Dirt & Cinder Fill		1'		1'		9 STATIC WATER LEVEL After Rescreening 15 ft below land surface <input type="checkbox"/> Flow			
Boulders & Sand		3'		4'		10 PUMPING LEVEL below land surface After Rescreening 23 ft after 8 hrs pumping at 525 G.P.M. ft after <input type="checkbox"/> hrs pumping at <input type="checkbox"/> G.P.M.			
Sand & Gravel with Boulders		38'		42'		11 WELL HEAD COMPLETION <input type="checkbox"/> Press adapter <input type="checkbox"/> 12 above grade <input type="checkbox"/> Baffle offset <input type="checkbox"/> Approved pit			
Clay		STOPPED IN FORMATION				12 WELL GROUTED? <input type="checkbox"/> No <input type="checkbox"/> Yes From <input type="checkbox"/> to <input type="checkbox"/> ft <input type="checkbox"/> Neat cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other <input type="checkbox"/> No. of bags of cement <input type="checkbox"/> Additives <input type="checkbox"/>			
INFORMATION TAKEN FROM ORIGINAL DRILLER'S LOG						13 Nearest source of possible contamination Type <input type="checkbox"/> Distance <input type="checkbox"/> ft Direction <input type="checkbox"/> Well drilled up on completion? <input type="checkbox"/> Yes <input type="checkbox"/> No Well old well plugged? <input type="checkbox"/> Yes <input type="checkbox"/> No			
IN 1964						14 PUMP <input type="checkbox"/> Not Installed <input type="checkbox"/> Pump Installed on Only Manufacturer's name <input type="checkbox"/> Model number <input type="checkbox"/> HP <input type="checkbox"/> Volts <input type="checkbox"/> Length of Drop Pipe <input type="checkbox"/> ft capacity <input type="checkbox"/> G.P.M. TYPE <input type="checkbox"/> Submersible <input type="checkbox"/> Jet <input type="checkbox"/> PRESSURE TANK Manufacturer's name <input type="checkbox"/> Model number <input type="checkbox"/> Capacity <input type="checkbox"/> Gallons			
15 Remarks elevation source of data etc * 6" of zinc wrapped around top of screen OUR WELL LOG IS ATTACHED						16 WATER WELL CONTRACTOR'S CERTIFICATION This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief Peerless-Midwest, Inc. 1980 REGISTERED BUSINESS NAME REGISTRATION NO. Address P.O. Box 26, Granger, IN 46530 Signed Michael J. Savage Date 6/26/89 AUTHORIZED REPRESENTATIVE			
17 Rig Operator's Name						Authority Completion Penalty Act 368 PA 1978 Required Conviction of a violation of any provision is a misdemeanor			

WELL LOG		GR JUND LEVEL
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Dirt & Cinder Fill 1'</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Boulders & Sand 4'</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Sand & Gravel With Boulders</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Clay</div>	2' 4' 17' 22' 24' 27' 42' 42'	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">36" hole drilled by Reverse Circulation method</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">34" O D casing, cemented in</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">14" casing Set 1989</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Concrete seal</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">10' of 18" blank</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">6" of zinc wrapped around top of screen</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Silica gravel pack</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">15' stainless steel shutter screen, 18" dia, #4 opening</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">20' of 14" stainless steel wire wound Cook screen, 060 slot</div>
<p>NOTE This well originally installed in 1964 with 18" screen and casing 14" liner installed 4/21/89 after gravel found in system Test after rescreening 525 GPM, static water level 15' pumping level 23', specific capacity 65 6</p>		
<p>City <u>Plainwell</u> State <u>Michigan</u></p> <p>Location <u>West Yard - 220' North of Allegan St., Approx. 265' West of Bldg. 23</u></p> <p>County <u>Allegan</u> Twp <u>Gun Plains</u> Section <u> </u></p>		
<p>Test Capacity <u>1223</u> GPM Static Water Level <u>18</u> ft Pumping Level <u>23</u> ft</p> <p>Specific Capacity <u>244 6</u> GPM/Ft D D</p> <p>Date Drilled <u>1964</u></p> <p>Driller <u>By Others</u></p> <p>Job No <u> </u></p>		<p>Well No <u>5</u></p> <p>SIMPSON/PLAINWELL PAPER</p> <p>PLAINWELL, MICHIGAN</p>
<p>PEERLESS-MIDWEST, INC. Banger Indiana</p>		



PEERLESS-MIDWEST, INC Water Supply Contractors
51255 BITTERSWEET ROAD / GRANGER INDIANA 46530 / 219 272 9050

TEST DRILLING REPORT

Well No. TW 89B City Plainwell County Allegan

Owner Simpson Plainwell Paper Company Township Gun Plaines

Section NE1/4SE1/4 of 30

Location State Michigan

63' East of TW 89A, 38' West of Center Maintenance Receiving Dock E Doors, 110'

West of Fire Well & 85' South of Paw Paw River

GRADE ELEVATION ABOVE MEAN SEA LEVEL — 717' ± 1'

Estimated

FORMATION	Top of Formation	Bottom of Formation	Thickness	Static Water Level	50% SIZE
Asphalt	0'	0 2'	0 2'	-	-
Brown Med to Cs Sand & Fine to Cs Gravel Fill, Some Boulders & Concrete	0 2'	8'	7 8'	-	-
Wet Dark Brownish-Gray Muddy Fine to Cs Gravel with Sones & Med to Cs Sand	8'	16 5'	8 5'	-	-
Wet Dark Gray Fine to Very Cs Gravel & Cs Sand, Some Stones, Some Silt & Clay	16 5'	23'	6 5'	7'	100
Heaving Wet Brown Med to Vary Cs Gravel & Cs Sand with Stones	23'	38'	15'	7'	150
Gray Silty Clay	38'	39'	1'	-	-

5-3/4 Dia hole drilled by hollow-stem auger Date completed August 4, 1989

None casing set to _____ screen set from _____ to _____

20 ft of 18" screen recommended from 18 to 38

Recommended screen slot size Tubular well NOT RECOMMENDED Gravel Pack well 36"x18" w/ 100" Slot

Water analysis Iron _____ PPM

hardness _____ GPG PH
Site Geologists Joel Annable/John Barnhart

Job No 7970

Driller Jon Cook



PEERLESS-MIDWEST, INC. Water Supply Contractors
51255 BITTERSWEET ROAD / GRANGER INDIANA 46530 / 219 272 9050

TEST DRILLING REPORT

Well No. TW 89A City Plainwell County Allegan

Owner Simpson Plainwell Paper Company Township Gun Plains

Section NE 1/4 SE 1/4 NE 1/4 of 30

Location State Michigan

Approximately 25' NW of Small Water Tank & 65' South of Paw Paw River, 173' West
of Fire Well

GRADE ELEVATION ABOVE MEAN SEA LEVEL — 717' ± 1' Estimated

FORMATION	Top of Formation	Bottom of Formation	Thickness	Static Water Level	50% SIZE
Asphalt	0'	0 2'	0 2'	-	-
Brown Med to Cs Sand & Fine to Very Cs Gravel Fill, Some Bricks & Concrete	0 2'	4'	3 8'	-	-
Brown Silty Med to Cs Sand & Fine to Very Cs Gravel, Some Stones & Boulders	4'	8'	4'	-	-
Wet Dark Brownish-Gray Muddy Fine to Cs Gravel & Med to Cs Sand	8'	16'	8'	-	-
Wet Dark Gray Muddy Fine to Very Cs Gravel & Med to Cs Sand	16'	22 5'	6 5'	-	-
Wet Brown Med to Very Cs Gravel & Cs Sand Some Stones, Some Clay & Silt	22 5'	30 5'	8'	7'	100
Wet Brown Gray Cs to Med Sand & Fine to Med Gravel, Little Silt	30 5'	38'	7 5'	7'	050
Dense Dry Gray Silty Clay, Occasional Gravel	38'	44'	6'	-	-

5-3/4 Dia hole drilled by hollow-stem auger Date completed 8/4/89

None ' casing set to _____ ' screen set from _____ to _____

_____ ft of _____ screen recommended from _____ to _____

Recommended screen slot size Tubular well NOT RECOMMENDED Gravel Pack well NOT RECOMMENDED

Water analysis Iron _____ PPM

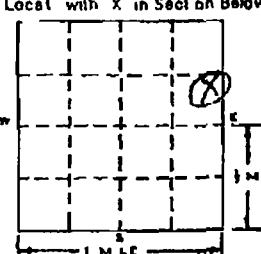
hardness _____ GPG PH _____
Site Geologists Joel Annable/John Barnhart
Driller Jon Cook

Job No. 7970

GEOLOGICAL SURVEY NO

MICHIGAN DEPARTMENT OF PUBLIC HEALTH WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL		Township Name		Fract on	Section Number	Town Number	Range Number
County Allegan		Gun Plaines		NE 1/4 SE 1/4 NE 1/4	30	10/S	11 E/W
Distance And Direction From Road Into section 63' East of TW 89A, 38' West of Center Maintenance Receiving Dock & Doors, 110' West of Fire Well & 85' South of Paw Paw River				3 OWNER OF WELL Simpson Plainwell Paper Company Add 200 Allegan Street Plainwell, MI 49080 Address Same As Well Location? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Local with X in Section Below 				4 WELL DPTH: 39' Date Completed 8/4/89 <input type="checkbox"/> New Well <input type="checkbox"/> Replace old Well			
2 FORMATION DESCRIPTION				5 USE <input type="checkbox"/> Domestic <input type="checkbox"/> Type I F bl c <input type="checkbox"/> Type III Publ <input type="checkbox"/> Irrigation <input type="checkbox"/> Type II Publ <input type="checkbox"/> Hot pump <input checked="" type="checkbox"/> Test Well <input type="checkbox"/> Type III Publ c			
THICKNESS OF STRATUM		DEPTH TO BOTTOM OF STRATUM		7 CASING Diameter <input type="checkbox"/> Steel <input type="checkbox"/> Threaded <input type="checkbox"/> Height Above/Below <input type="checkbox"/> NONE <input type="checkbox"/> Pl. lic <input type="checkbox"/> Welded <input type="checkbox"/> Surface <input type="checkbox"/> ft <input type="checkbox"/> Weight <input type="checkbox"/> lbs/ft <input type="checkbox"/> Grouted On Hole Diameter <input type="checkbox"/> n to <input type="checkbox"/> ft depth <input type="checkbox"/> Drive Shoe <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> In. to <input type="checkbox"/> ft depth			
Asphalt		0 2'		8 SCREEN <input type="checkbox"/> Not Installed Type <input type="checkbox"/> Diameter <input type="checkbox"/> Slot/Course <input type="checkbox"/> Length <input type="checkbox"/> Set between <input type="checkbox"/> ft and <input type="checkbox"/> ft <input type="checkbox"/> FITTINGS <input type="checkbox"/> K Packer <input type="checkbox"/> Load Pack r <input type="checkbox"/> Remor Ch k <input type="checkbox"/> Blank above screen <input type="checkbox"/> ft Other <input type="checkbox"/>			
Brn Med to Co Sand & Fine to Co Gravel Fill, Some Blids & Concrete		7 8'		9 STATIC WATER LEVEL 7' ft below land surface <input type="checkbox"/> Flow			
Wet Dark Brownish-Gray Muddy Fine to Co Gravel with Stones & Med to Co Sand		8 5'		10 PUMPING LEVEL below land surface ft after hrs pumping at GPM ft after hr pumping at GPM			
Wet Dark Gray Fine to Very Co Gravel & Co Sand, Some Stones, Some Silt & Clay		6 5'		11 WELL HEAD COMPLETION <input type="checkbox"/> Pileless adapter <input type="checkbox"/> 12 above grade <input type="checkbox"/> Basement offset <input type="checkbox"/> Approved pit			
Heaving Wet Brown Med to Very Co Gravel & Co Sand with Stones		15'		12 WELL GROUTED? <input type="checkbox"/> No <input type="checkbox"/> Yes From <input type="checkbox"/> to <input type="checkbox"/> ft <input type="checkbox"/> Neat cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other <input type="checkbox"/>			
Gray Silty Clay		1'		13 Nearest source of possible contamination Type <input type="checkbox"/> Distance <input type="checkbox"/> ft Direct o <input type="checkbox"/> Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No Was old well plugged? <input type="checkbox"/> Yes <input type="checkbox"/> No			
USE A 2ND SHEET IF NEEDED				14 PUMP <input type="checkbox"/> Not Installed <input type="checkbox"/> Pump Installation Only Manufacturer's name <input type="checkbox"/> Model number <input type="checkbox"/> HP <input type="checkbox"/> Volt <input type="checkbox"/> Length of Drop Pipe <input type="checkbox"/> ft capacity <input type="checkbox"/> GPM TYPE <input type="checkbox"/> Submersible <input type="checkbox"/> Jet <input type="checkbox"/> PRESSURE TANK Manufacturer's name <input type="checkbox"/> Model number <input type="checkbox"/> Capacity <input type="checkbox"/> Gallons			
15 Remarks elevation source of data etc				16 WATER WELL CONTRACTOR'S CERTIFICATION This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief Deerleap Midwest, Inc. 1080 REGISTERED BUSINESS NAME REGISTRATION NO Address P. O. Box 28, Granger, IN 46530 Signed Michael J. Savage Date 8/31/89 AUTHORIZED REPRESENTATIVE Authority Completion Penalty A 1388 PA 1978 Reg. Conviction of a violation of any p. is m. d. meanor			
17 Rig Operator's Name: John Cook							

0876 12/88

GEOLOGICAL SURVEY COPY

GEOLOGICAL SURVEY NO

MICHIGAN DEPARTMENT OF PUBLIC HEALTH WATER WELL AND PUMP RECORD

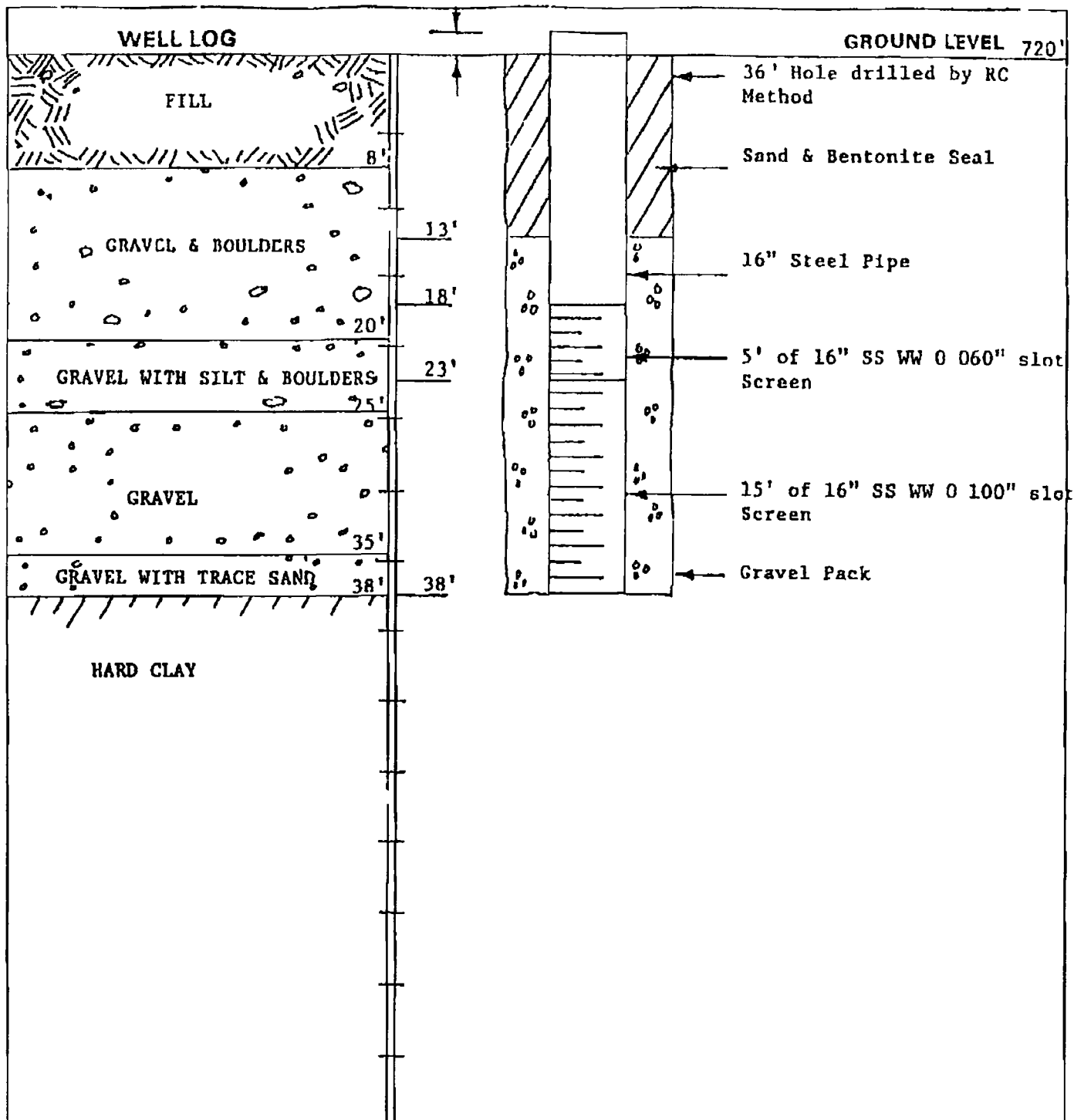
PERMIT NUMBER

1 LOCATION OF WELL		County		Township Name		Fraction		Section Number		Town Number		Range Number																												
Allegan		Gun Plainee		NE 1/4 SE 1/4 NE 1/4		30		10 NS		11 EW																														
Distance And Direction From Road Intersection						3 OWNER OF WELL																																		
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Sketch Map						4 WELL DEPTH																																		
						Date Completed <u>8/4/89</u> <input type="checkbox"/> New Well <input type="checkbox"/> Replacement Well 44 FT																																		
2 FORMATION DESCRIPTION						5 USE																																		
<table border="1"> <thead> <tr> <th>FORMATION DESCRIPTION</th> <th>THICKNESS OF STRATUM</th> <th>DEPTH TO BOTTOM OF STRATUM</th> </tr> </thead> <tbody> <tr> <td>Asphalt</td> <td>0 2'</td> <td>0 2'</td> </tr> <tr> <td>Brn Med to Cs Sand & Fine to Very Cs Gravel Fill, Some Bricks & Concrete</td> <td>3 8'</td> <td>4'</td> </tr> <tr> <td>Brn Silty Med to Cs Sand & Fine to Very Cs Gravel, Some Stones & Bldgs.</td> <td>4'</td> <td>8'</td> </tr> <tr> <td>Wet Dark Brownish-Gray Muddy Fine to Cs Gravel & Med. to Cs Sand</td> <td>8'</td> <td>16'</td> </tr> <tr> <td>Wet Dark Gray Muddy Fine to Very Cs Gravel & Med to Cs Sand</td> <td>6.5'</td> <td>22.5'</td> </tr> <tr> <td>Wet Brown Med to Very Cs Gravel & Cs Sand, Some Stones, Some Clay & Silt</td> <td>8'</td> <td>30.5'</td> </tr> <tr> <td>Wet Brown Gray Cs to Med Sand & Fine to Med. Gravel, Little Silt</td> <td>7.5'</td> <td>38'</td> </tr> <tr> <td>Dense Dry Gray Silty Clay, Occasional Gravel</td> <td>6'</td> <td>44'</td> </tr> </tbody> </table>						FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	Asphalt	0 2'	0 2'	Brn Med to Cs Sand & Fine to Very Cs Gravel Fill, Some Bricks & Concrete	3 8'	4'	Brn Silty Med to Cs Sand & Fine to Very Cs Gravel, Some Stones & Bldgs.	4'	8'	Wet Dark Brownish-Gray Muddy Fine to Cs Gravel & Med. to Cs Sand	8'	16'	Wet Dark Gray Muddy Fine to Very Cs Gravel & Med to Cs Sand	6.5'	22.5'	Wet Brown Med to Very Cs Gravel & Cs Sand, Some Stones, Some Clay & Silt	8'	30.5'	Wet Brown Gray Cs to Med Sand & Fine to Med. Gravel, Little Silt	7.5'	38'	Dense Dry Gray Silty Clay, Occasional Gravel	6'	44'	<input type="checkbox"/> Cable tool <input type="checkbox"/> Rotary <input type="checkbox"/> Driven <input type="checkbox"/> Dug <input type="checkbox"/> Hollow rod <input checked="" type="checkbox"/> Auger <input type="checkbox"/> Jetted <input type="checkbox"/> Domestic <input type="checkbox"/> Test Well <input type="checkbox"/> Type III Public <input type="checkbox"/> Irrigation <input type="checkbox"/> Type IIa Public <input type="checkbox"/> Heat pump <input checked="" type="checkbox"/> Test Well <input type="checkbox"/> Type IIb Public							
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9 STATIC WATER LEVEL						10 PUMPING LEVEL																																		
7 ft below land surface <input type="checkbox"/> Flow						_____ ft after _____ hrs pumping at _____ GPM _____ ft after _____ hrs pumping at _____ GPM																																		
11 WELL HEAD COMPLETION						12 WELL GROUTED?																																		
<input type="checkbox"/> Piles adapter <input type="checkbox"/> 12 above grade <input type="checkbox"/> Basement offset <input type="checkbox"/> App over pit						<input type="checkbox"/> No <input type="checkbox"/> Yes From _____ to _____ ft <input type="checkbox"/> Heat cement <input type="checkbox"/> Best to <input type="checkbox"/> Other _____ No. of bags of cement _____ Additives _____																																		
13 Nearest source of possible contamination						14 PUMP																																		
Type _____ Distance _____ ft Direction _____ Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No Was old well plugged? <input type="checkbox"/> Yes <input type="checkbox"/> No						<input type="checkbox"/> Not Installed <input type="checkbox"/> Pump Installed on Only Manufacturer's name _____ Model number _____ HP _____ Volts _____ Length of Drop Pipe _____ ft Capacity _____ GPM TYPE <input type="checkbox"/> Submersible <input type="checkbox"/> Jet PRESSURE TANK Manufacturer's name _____ Model number _____ Capacity _____ Gallons																																		
15 Remarks, elevation, source of data, etc.						16 WATER WELL CONTRACTOR'S CERTIFICATION																																		
17 Rig Operator's Name John Cook						This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief Peerless-Midwest, Inc 1980 REGISTERED BUSINESS NAME REGISTRATION NO Address P.O. Box 26, Granger, IN 46530 Signed <u>Michael J. Ganger</u> Date 8/31/89 AUTHORIZED REPRESENTATIVE Authority Completion P n lty:																																		

DB7a 12/85

GEOLOGICAL SURVEY COPY

 Act 388 PA 1978
 Required
 Conviction of a violation
 of any provision is a
 misdemeanor



City PLAINWELL State MICHIGAN

Location 110' W of Fire Well & 85' S of Kalamazoo River

County Allegan Twp Gun Plains T1N R11W Section NE SE NE 30

Test Capacity 1515 GPM Static Water Level 12 ft Pumping Level 19 ft

Specific Capacity 216 GPM/Ft D D

Date Drilled 11-15-89

Driller Russell D Jones

Job No 8137

Well No 8

SIMPSON/PLAINWELL PAPER COMPANY

PLAINWELL, MICHIGAN

PEERLESS-MIDWEST, INC
Granger Indiana

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL		3 OWNER OF WELL	
County Allegan	Township Name Gun Plains	Fraction NE 1/4 SE 1/4 NE 1/4	Section Number 30
Distance And Direction From Road Intersection 110' West of Fire Well & 85' South of Kalamazoo River		Town Number 1 N/2	
Street Address & City of Well location Loc 12 with X in Section Below		Range Number 11 E/W	
Sketch Map 		Address Simpson/Plainwell Paper Company 200 Allegan Street Plainwell, MI 49080	
2 FORMATION DESCRIPTION		Address Same As Well location? <input type="checkbox"/> Y <input checked="" type="checkbox"/> No	
THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	4 WELL DEPTH 38 FT	
Fill	8'	Date Completed 11/15/89	
Gravel & Boulders	12'	<input checked="" type="checkbox"/> New Well <input type="checkbox"/> Replacement Well	
Gravel with Silt & Boulders	5'	5 <input type="checkbox"/> Cable tool <input type="checkbox"/> Rotary <input type="checkbox"/> Onvan <input type="checkbox"/> Dug	
Gravel	10'	<input type="checkbox"/> Hollow rod <input type="checkbox"/> Auger <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> RC	
Gravel with Trace Sand	3'	6 USE <input type="checkbox"/> Domestic <input type="checkbox"/> Type I Public <input type="checkbox"/> Type III Public	
Hard Clay		<input type="checkbox"/> Irrigal or <input checked="" type="checkbox"/> Type IIa Public <input type="checkbox"/> Heat pump	
		<input type="checkbox"/> Test Well <input type="checkbox"/> Type IIIb Public <input type="checkbox"/>	
		7 CASING <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Threaded <input type="checkbox"/> Welded	
		<input type="checkbox"/> Plastic <input type="checkbox"/> Height Above Surface XXXXX	
		16 in. to 18 in. depth	
		to 11 ft depth	
		Grouted Drill Hole Diameter	
		to 13 in. depth	
		to 11 ft depth	
		to 11 ft depth	
		Dive Shoe <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		8 SCREEN <input type="checkbox"/> Not Installed	
		Type SSW Diameter 16"	
		Slot/Gauge 0.060/0.100 Length 5'/13'	
		Set between 18 ft and 38 ft	
		FITTINGS <input type="checkbox"/> K Packer <input type="checkbox"/> Lead Packer <input type="checkbox"/> Brame Check	
		<input type="checkbox"/> Blank above screen 11 ft Other	
		9 STATIC WATER LEVEL 12 ft below land surface <input type="checkbox"/> Flow	
		10 PUMPING LEVEL below land surface	
		19 ft after 8 hrs pumping at 1515 GPM	
		ft after hrs pumping at GPM	
		11 WELL HEAD COMPLETION <input type="checkbox"/> Plastic adapter <input checked="" type="checkbox"/> 12 Above grade	
		<input type="checkbox"/> Basement offset <input type="checkbox"/> Approved pit	
		12 WELL GROUTED? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes From 0 to 13 ft	
		<input checked="" type="checkbox"/> Neat cement <input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> Other	
		No. of bags of cement 1 Add lbs	
		13 Nearest source of possible contamination	
		Type 1 Distance 1 ft Direction 1	
		Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		Was old well plugged? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		14 PUMP <input type="checkbox"/> Not installed <input type="checkbox"/> Pump installation Only	
		Manufacturer's name	
		Model number MP Volts	
		Length of Drop Pipe 1 ft capacity 1 G.P.M.	
		TYPE <input type="checkbox"/> Submersible <input type="checkbox"/> Jet	
		PRESSURE TANK	
		Manufacturer's name	
		Model number 1 Capacity 1 Gallons	
15 Remarks elevation source of data etc Well Log is Attached		16 WATER WELL CONTRACTOR'S CERTIFICATION	
17 Rig Operator's Name Russell D Jones		This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief	
		PEERLESS-MIDWEST, INC 1980	
		REGISTERED BUSINESS NAME 1 REGISTRATION NO 1	
		Address P. O. Box 26, Granger, IN 46530	
		Signed Michael J. Savage Date 12/1/89	
		AUTHORIZED REPRESENTATIVE	

D67d 2/89

Authority
Completion:
Penalty:

Act 388 PA 1978
Required
Conviction for a violation
of any provision of a
misdemeanor

GEOLOGICAL SURVEY COPY



PEERLESS MIDWEST, INC. Water Supply Contractors
51255 BITTERSHEET ROAD/CRANGER, INDIANA 46538 / (219) 272-9858
P.O. BOX 261 / INDIA, MICHIGAN 48864 / (616) 527-8858

WELL
COMPLETION DATE 3/1/95
JOB NUMBER 11803

DRILLING REPORT

OWNER Simpson Plainwell Paper WELL NO Test Boring 95A
CITY Plainwell STATE IN COUNTY Allegan
CIVIL TOWNSHIP Gun Plain T LN R 11W SECTION NW 1 SE 1 NE 1 30
LOCATION 158' N of Centerline of Allegan St + 10 5' E of W Fence Line (Fence with
Mined Tree Fence)
GROUND ELEV 730' + 5' CASING HEIGHT ABOVE GRADE N/A STATIC LEVEL ~~XXXX~~ 10'
Grade

FORMATION	ESTIMATED	50% SIZE	TOP	BOTTOM
			0'	1½'
Red-Brown, Loamy Fine-Medium Sand, Some Coarse Sand & Fine				
Gravel, Trace of Medium Gravel		0 013"	1½'	3'
Medium Brown, Slightly Loamy, Medium Sand, Some Coarse Sand				
& Medium Gravel		0 017"	3'	8½'
Coarse Sand & Fine Gravel, Some Med Sand & Med Gravel, Little				
Coarse Gravel		0 040'	8½'	10'
Coarse Sand & Fine Gravel w/Some Med & Coarse Gravel		0 050"	10'	13'
Saturated, Fine Gravel to Coarse Sand, Some Med Sand & Med				
Gravel		0 047"	13'	28½'
Saturated Med to Coarse Sand w/Some Fine Gravel & Med Gravel		0 030"	28½'	30'
Saturated, Fine Gravel w/Coarse Sand, Some Med Gravel, Little				
Med to Fine Sand		0 047'	30'	39'
Gray Clay		-	39'	40'
BORING PLUGGED AND ABANDONED				

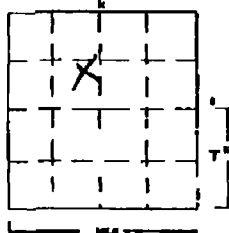
7-7/8 " DIA. HOLE FOR test boring/formation analysis DRILLED BY hollow-stem auger METHOD
None " DIA. - CASING SET TO - None GRAVEL PACK SET FROM - TO -
None " DIA. - SCREEN WITH - " SLOT SET FROM - TO -
DRILLED TO 40 WELL TESTED BY N/A AT - GPM FOR - HOURS WITH - DRAWDOWN
- TYPE PUMP INSTALLED WITH TOTAL SETTING OF -
☐ WELL Cased AND GROUTED WITH - FROM - TO -
☒ WELL ABANDONED AND SEALED WITH Native Cuttings FROM 10' TO 40'
"Hole Plug" Bentonite FROM 0' TO 10'
SITE GEOLOGIST Stephen Geschke DRILLER Greg Nielson, LICENSE NO 977
Cook Drilling

I HEREBY SWEAR OR AFFIRM UNDER THE PENALTY FOR PERJURY THAT
THE INFORMATION SUBMITTED HEREIN IS TO THE BEST OF MY
KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE.

SIGNATURE OF OWNER OR AUTHORIZED REPRESENTATIVE

Michael J. Savage

DATE
3/1/95

TAX NO		MICHIGAN DEPARTMENT OF PUBLIC HEALTH WATER WELL AND PUMP RECORD				PERMIT NO																												
1 LOCATION OF WELL		Township Name		Fraction	Section No	Town No	Range No																											
County Allegan		Gun Plain		NW 1/4 SE 1/4 NE 1/4	30	1N	11W																											
Distance and Direction from Road Intersection 158' North of centerline of Allegan Street & 10 5' East of West Fence Line (Fence with Mined Tec Fence)				3 OWNER OF WELL Address Simpson Plainwell Paper Co 200 Allegan Street Plainwell, MI 49080 Address Same as Well Location <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																														
Street Address & City of Well Location				4 WELL DEPTH 40 ft Date Completed 3 / 1 / 95 <input type="checkbox"/> New Well <input type="checkbox"/> Replacement Well																														
Locate with x in Section Below 				5 <input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary <input type="checkbox"/> Driven <input type="checkbox"/> Dug <input type="checkbox"/> Hollow Rod <input checked="" type="checkbox"/> Auger/Bored <input type="checkbox"/> Jetted <input type="checkbox"/>																														
2 FORMATION DESCRIPTION				6 USE <input type="checkbox"/> Household <input type="checkbox"/> Type I Public <input type="checkbox"/> Type III Public <input type="checkbox"/> Irrigation <input type="checkbox"/> Type IIa Public <input type="checkbox"/> Heat Pump <input type="checkbox"/> Test Well <input type="checkbox"/> Type IIb Public <input checked="" type="checkbox"/> Test Boring																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>THICKNESS OF STRATUM</th> <th>DE TH TO BOTTOM OF STRATUM</th> </tr> </thead> <tbody> <tr> <td>Red-Brown, Loamy Fine-Med Sand, Some Coarse Sand & Fine Gravel, Trace of Med. Gravel</td> <td>1 1/2'</td> <td>1 1/2'</td> </tr> <tr> <td>Med Brown, Slightly Loamy, Med Sand, Some Coarse Sand & Med. Gravel</td> <td>1 1/2'</td> <td>3'</td> </tr> <tr> <td>Coarse Sand & Fine Gravel, Some Med Gravel, Little coarse gravel</td> <td>1 1/2'</td> <td>10'</td> </tr> <tr> <td>Coarse Sand Fine Gravel w/Some Med. & Coarse Gravel</td> <td>3'</td> <td>13'</td> </tr> <tr> <td>Saturated, Fine Gravel to Coarse Sand, Some Med Sand & Med Gravel</td> <td>15 1/2'</td> <td>28 1/2'</td> </tr> <tr> <td>Saturated Med. to Coarse Sand w/Some Fine Gravel & Med. Gravel</td> <td>1 1/2'</td> <td>30'</td> </tr> <tr> <td>Saturated, Fine Gravel w/Coarse Sand, Some Med. Gravel, Little Med to Fine Sand</td> <td>9'</td> <td>39'</td> </tr> <tr> <td>Gray Clay</td> <td>1'</td> <td>40'</td> </tr> </tbody> </table>					THICKNESS OF STRATUM	DE TH TO BOTTOM OF STRATUM	Red-Brown, Loamy Fine-Med Sand, Some Coarse Sand & Fine Gravel, Trace of Med. Gravel	1 1/2'	1 1/2'	Med Brown, Slightly Loamy, Med Sand, Some Coarse Sand & Med. Gravel	1 1/2'	3'	Coarse Sand & Fine Gravel, Some Med Gravel, Little coarse gravel	1 1/2'	10'	Coarse Sand Fine Gravel w/Some Med. & Coarse Gravel	3'	13'	Saturated, Fine Gravel to Coarse Sand, Some Med Sand & Med Gravel	15 1/2'	28 1/2'	Saturated Med. to Coarse Sand w/Some Fine Gravel & Med. Gravel	1 1/2'	30'	Saturated, Fine Gravel w/Coarse Sand, Some Med. Gravel, Little Med to Fine Sand	9'	39'	Gray Clay	1'	40'	7 CASING <input type="checkbox"/> Steel <input type="checkbox"/> Threaded <input type="checkbox"/> Plastic <input type="checkbox"/> Welded <input type="checkbox"/> Other Diameter _____ in to _____ ft depth Weight _____ lbs/ft BORE HOLE Diameter _____ in to _____ ft depth			
					THICKNESS OF STRATUM	DE TH TO BOTTOM OF STRATUM																												
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				8 SCREEN <input checked="" type="checkbox"/> No Installed <input type="checkbox"/> Gravel Packed Type _____ Diameter _____ Slot/Gauze _____ Length _____ Set Between _____ ft and _____ ft FITTINGS <input type="checkbox"/> K Packer <input type="checkbox"/> Bremer Check <input type="checkbox"/> Blank Above Screen <input type="checkbox"/> Other _____																														
				9 STATIC WATER LEVEL 10 ft Below Land Surface <input type="checkbox"/> Flowing																														
				10 PUMPING LEVEL Below Land Surface _____ ft After _____ hrs Pumping at _____ G P M <input type="checkbox"/> Plunger <input type="checkbox"/> Bailor <input type="checkbox"/> Air <input type="checkbox"/> Test Pump																														
				11 WELL HEAD COMPLETION <input type="checkbox"/> Pileless Adapter <input type="checkbox"/> 12 Above Grade <input type="checkbox"/> Basement Offset <input type="checkbox"/> Well House																														
				12 WELL GROUTED? <input type="checkbox"/> No <input type="checkbox"/> Yes From _____ to _____ ft <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____ No. of Bags _____ Additives _____																														
				13 NEAREST SOURCE OF POSSIBLE CONTAMINATION Type _____ Distance _____ ft Direction _____ Type _____ Distance _____ ft Direction _____																														
15 ABANDONED WELL PLUGGED? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Casing Diameter _____ in Depth _____ ft PLUGGING MATERIAL <input type="checkbox"/> Neat Cement <input checked="" type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Cement/Bentonite Slurry <input type="checkbox"/> Concrete Grout <input type="checkbox"/> Bentonite Chips No. of Bags _____ Casing Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No				14 PUMP <input type="checkbox"/> Not Installed <input type="checkbox"/> Pump Installation Only Manufacturer's Name _____ HP _____ Volts _____ Model Number _____ Length of Drop Pipe _____ ft Capacity _____ G P M TYPE <input type="checkbox"/> Submersible <input type="checkbox"/> Jet <input type="checkbox"/> Other _____ PRESSURE TANK Manufacturer's Name _____ Model Number _____ Capacity _____ Gallons _____																														
16 REMARKS (Elevation, Source of Data, etc.) A copy of our Drilling Report is attached				15 WATER WELL CONTRACTOR'S CERTIFICATION This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief Peerless-MIDWEST, Inc. 1980 REGISTERED BUSINESS NAME REGISTRATION NO Address 51255 Bittersweet Road, Granger, IN 46530 Signed <i>Michael J. ...</i> Date 3/24/95																														
7 DRILLING MACHINE OPERATOR <input type="checkbox"/> Employee <input checked="" type="checkbox"/> Subcontractor Name Greg Nielson Cook Drilling																																		

GW 2-228 5/93

GEOLOGICAL SURVEY COPY

 Authority: Act 368, P.A. 078
 Completion Required
 Penalty: Conviction 1st Violation of any provision is a misdemeanor

APPENDIX B

STRATIGRAPHIC INFORMATION
AREA 3 – NORTH CENTRAL PORTION



fishbeck, thompson carr & huber
engineers scientists architects constructors

Grand Rapids (616) 575 3824
Lansing (517) 627 1141
Kalamazoo (269) 375 3824
Farmington Hills (248) 324 2090

BOREHOLE LOG

BORING/WELL ID SB-1

TOTAL DEPTH (ft) 20'

PROJECT Plainwell Paper Phase II ESA

SITE LOCATION Plainwell Michigan

PROJECT NO G06523

PROJECT MANAGER Steve Kimm, CPG

LOGGED BY Brad Peuler

START DATE 9 5-06

END DATE 9 5 06

TOC ELEV

GROUND ELEV

STATIC WATER LVL

DRILLING CO Great Lakes Geotechnical Services

DRILLER Dan & Tom Crandell

RIG TYPE 66 DT Geoprobe

METHOD OF DRILLING Direct Push

SAMPLING METHODS Macro Cores

NOTES Located In The Former Wastewater Lagoon Area.
Soil Samples Collected for PCBs As, Cd, Cr Cu, Pb Hg, Se and Zn

Static Water Level

Page 1 of 1

DESCRIPTION	PID ppm	GRAPHIC LOG	DEPTH (ft. bgl)	Static Water Level	Sample/ Recovery	Sample ID	Blow Counts	COMMENTS
TOPSOIL organic rich with trace Clay black moderately sorted moist			0					
SAND fine to medium grained with trace coarse Sand brown moderately sorted dry	0		0					
SAND fine to medium grained with trace coarse Sand trace fine Gravel trace Clay brown poorly sorted dry	0		0					
SAND fine to coarse grained with trace fine to coarse Gravel brown poorly sorted dry	0		0					
SAND AND GRAVEL Sand medium to coarse grained with fine Gravel and trace coarse Gravel gray moderately sorted moist	0		0					
Same As Above (black)	0		0					
SAND AND GRAVEL Sand medium to coarse with fine Gravel black moderately sorted moist	0		0					



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Grand Rapids (616) 575 3824
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Farmington Hills (248) 324 2090

BOREHOLE LOG

BORING/WELL ID SB-2

TOTAL DEPTH (ft) 20'

PROJECT Plainwell Paper Phase II ESA
SITE LOCATION Plainwell Michigan
PROJECT NO G06523
PROJECT MANAGER Steve Kimm CPG
LOGGED BY Brad Peuler

START DATE 9-5-06
END DATE 9-5-06
TOC ELEV
GROUND ELEV
STATIC WATER LVL.

DRILLING CO Great Lakes Geotechnical Services
DRILLER Dan & Tom Crandell
RIG TYPE 66 DT Geoprobe
METHOD OF DRILLING Direct Push
SAMPLING METHODS Macro Cores

NOTES Located In The Former Wastewater Lagoon Area.
Soil Samples Collected for PCBs, As Cd, Cr Cu Pb Hg, Se and Zn

Static Water Level Page 1 of 1

DESCRIPTION	PID ppm	GRAPHIC LOG	DEPTH (ft. bgl)	Static Water Level	Sample/ Recovery	Sample ID	Blow Counts	COMMENTS
-------------	------------	----------------	--------------------	-----------------------	---------------------	--------------	----------------	----------

SAND fine to medium grained with trace coarse Sand brown moderately sorted dry	0		0					
SAND medium grained with trace fine and coarse Sand brown moderately sorted dry	0		2					
DEBRIS Paperwaste gray moist	0		4					
PAPERWASTE with black granular Ash gray soft, moist	10		6					
PAPERWASTE gray soft, moist	0		8					
ASH fine granular cinders black very well sorted moist	0		10					
SAND fine to medium grained with trace coarse Sand black moderately sorted wet	0		12					
SAND AND GRAVEL Sand medium to coarse with fine Gravel black, moderately sorted moist	0		14					
SAND AND GRAVEL Sand medium grained with coarse Gravel dark brown moderately sorted wet	0		16					
			18					
			20					



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Farmington Hills (248) 324 2090

BOREHOLE LOG

BORING/WELL ID SB/TW-3

TOTAL DEPTH (ft) 15'

PROJECT Plainwell Paper Phase II ESA	START DATE 9 5-06	DRILLING CO Great Lakes Geotechnical Services
SITE LOCATION Plainwell Michigan	END DATE 9 5-06	DRILLER Dan & Tom Crandell
PROJECT NO G06523	TOC ELEV	RIG TYPE 66 DT Geoprobe
PROJECT MANAGER Steve Kimm CPG	GROUND ELEV	METHOD OF DRILLING Direct Push
LOGGED BY Brad Peuler	STATIC WATER LVL 8.2 BGS	SAMPLING METHODS Macro Cores

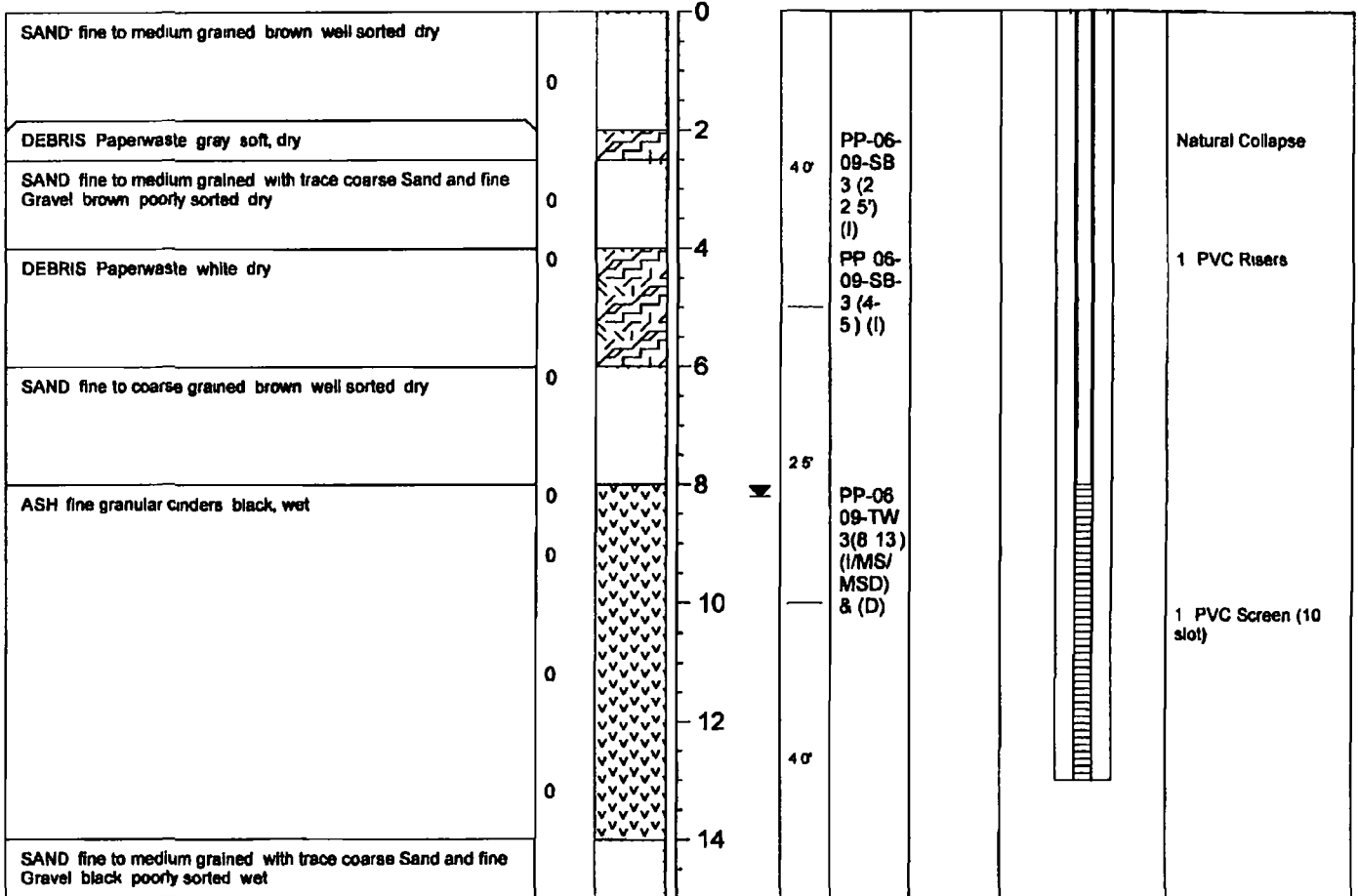
NOTES Located In The Former Wastewater Lagoon Area.

Soil and Groundwater Samples Collected for PCBs As Cd Cr Cu Pb Hg Se and Zn

Static Water Level

Page 1 of 1

DESCRIPTION	PID ppm	GRAPHIC LOG	DEPTH (ft bgl)	Static Water Level	Sample/ Recovery	Sample ID	Blow Counts	WELL CONSTRUCTION DETAIL
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Farmington Hills (248) 324 2090

BOREHOLE LOG

BORING/WELL ID SB-4

TOTAL DEPTH (ft) 15'

PROJECT Plainwell Paper Phase II ESA
SITE LOCATION Plainwell Michigan
PROJECT NO G06523
PROJECT MANAGER Steve Kimm CPG
LOGGED BY Brad Peuler

START DATE 9-5-06
END DATE 9-5-06
TOC ELEV
GROUND ELEV
STATIC WATER LVL

DRILLING CO Great Lakes Geotechnical Services
DRILLER Dan & Tom Crandell
RIG TYPE 66 DT Geoprobe
METHOD OF DRILLING Direct Push
SAMPLING METHODS Macro Cores

NOTES Located In The Former Wastewater Lagoon Area.
Soil Samples Collected for PCBs As, Cd, Cr Cu Pb Hg, Se and Zn.

Static Water Level Page 1 of 1

DESCRIPTION	PID ppm	GRAPHIC LOG	DEPTH (ft. bgl)	Static Water Level	Sample/ Recovery	Sample ID	Blow Counts	COMMENTS
-------------	------------	----------------	--------------------	-----------------------	---------------------	--------------	----------------	----------

SAND fine to medium grained brown well sorted dry	0		0					
SAND medium grained with trace coarse Sand brown well sorted dry	0		2					
	0		4					
SAND fine to medium grained with trace fine Gravel brown moderately sorted dry	0		6					
	0		8					
SAND medium grained with trace fine Sand brown well sorted dry	0		10					
DEBRIS Paperwaste grayish white fibrous, dry	0		12					
	0		14					
SAND medium grained with trace fine and coarse Sand gray moderately sorted wet	0							
SAND AND GRAVEL Sand coarse grained with fine Gravel dark gray well sorted wet	0							



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BORING/WELL ID SB/TW-5

TOTAL DEPTH (ft) 15'

LOGGED BY Brad Peuler

STATIC WATER LVL. 96 BGS

SAMPLING METHODS Macro Cores

NOTES Located In The Former Coal Storage Area Soil and Groundwater Samples Collected for PNAs Phenols As Cd Cr Cu Pb Hg Se and Zn

▼ **Static Water Level**

Page 1 of 1

DESCRIPTION	PID ppm	GRAPHIC LOG	DEPTH (ft bgl)	Static Water Level	Sample/ Recovery	Sample ID	Blow Counts	WELL CONSTRUCTION DETAIL
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[illegible]



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Grand Rapids (616) 575 3824
Lansing (517) 627 1141
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Farmington Hills (248) 324 2090

BOREHOLE LOG

BORING/WELL ID SB/TW-6

TOTAL DEPTH (ft) 15'

PROJECT Plainwell Paper Phase II ESA
SITE LOCATION Plainwell Michigan
PROJECT NO G06523
PROJECT MANAGER Steve Kimm CPG
LOGGED BY Brad Peuler

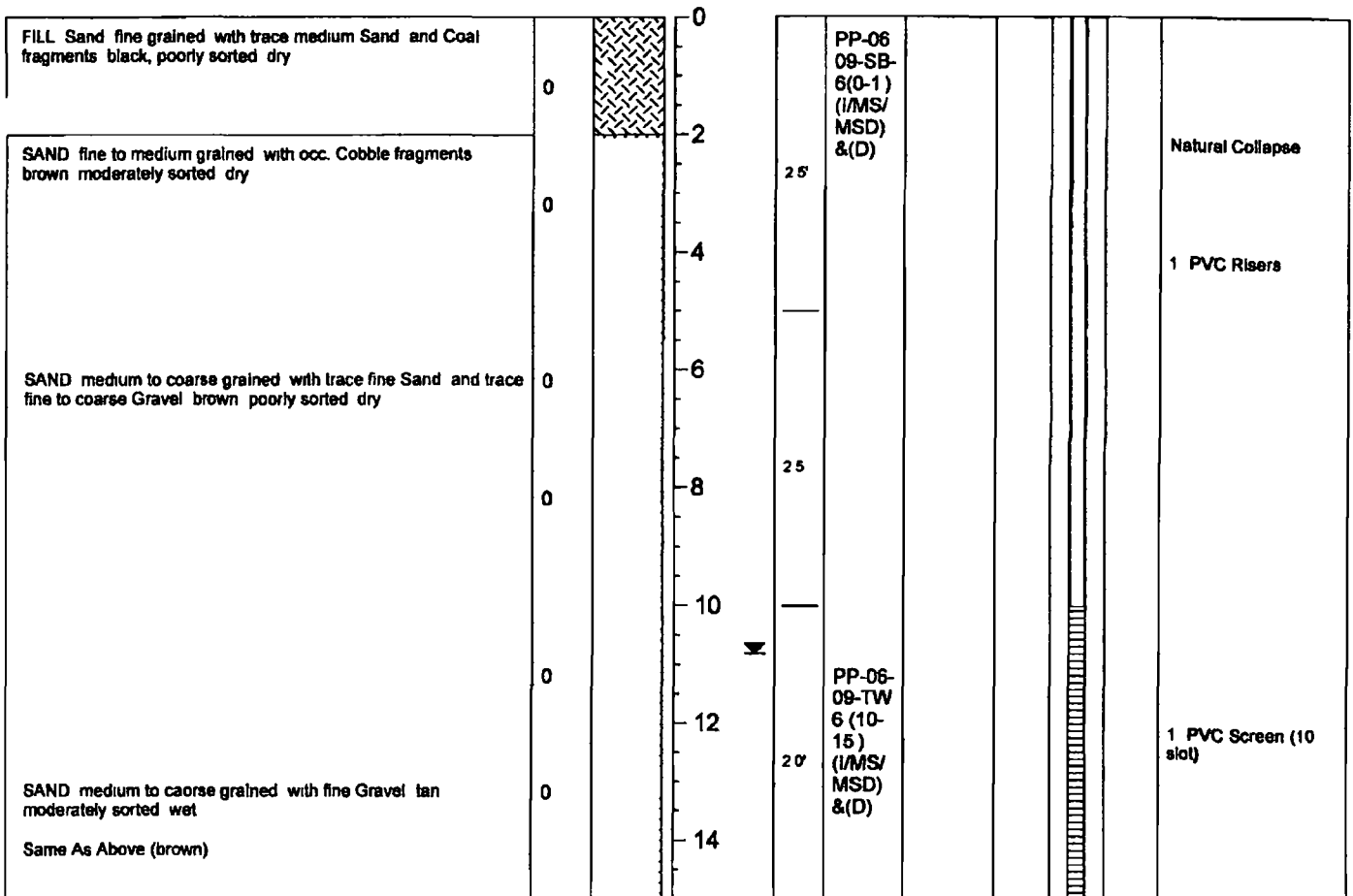
START DATE 9 5 06
END DATE 9 5-06
TOC ELEV
GROUND ELEV
STATIC WATER LVL. 10 8 BGS

DRILLING CO Great Lakes Geotechnical Services
DRILLER Dan & Tom Crandell
RIG TYPE 66 DT Geoprobe
METHOD OF DRILLING Direct Push
SAMPLING METHODS Macro Cores

NOTES Located In The Former Fuel Oil Area. Soil and Groundwater Samples Collected for Chloride (GW only) 8260 Plus VOCs PNAs PCBs As Cd Cr Cu Pb Hg Se and Zn

Static Water Level Page 1 of 1

DESCRIPTION	PID ppm	GRAPHIC LOG	DEPTH (ft. bgl)	Static Water Level	Sampler Recovery	Sample ID	Blow Counts	WELL CONSTRUCTION DETAIL
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Facility/Project Name Weyerhaeuser Mill Groundwater Investigation			Date Drilling Started 12/9/08		Date Drilling Completed 12/9/08		Project Number 5133 06		
Drilling Firm Mateco Drilling		Drilling Method Hollow Stem Auger		Surface Elev (ft) —		TOC Elevation (ft) —		Total Depth (ft bgs) 18 0	
Boring Location				Personnel Logged By SM/KGG Driller Gary Swift			Drilling Equipment CME 55LC		
Civil Town/City/or Village Plainwell		County Allegan		State MI		Water Level Observations While Drilling Date/Time 12/9/08 00.00 <input checked="" type="checkbox"/> Depth (ft bgs) 12.5 After Drilling Date/Time — Depth (ft bgs) —			

SAMPLE NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	COMMENTS
1 SS	100	3	0	Topsoil Topsoil with organics	SW			
		3	3	Sand Mostly coarse sand some medium sand little gravel	SM			
		3	3	Moist loose no odor Brown (7 5YR 4/4)				
2 SS	42	3	2	Sand Mostly medium some fine sand little silt Moist compact	SW			
		3	3	no odor Yellow Brown (10YR 5/4)				
		3	3	Color grades to Dark Grayish Brown (10YR3/2)				
3 SS	58	2	4	Sand Mostly medium sand some fine sand little coarse sand	SW			
		3	3	Moist loose no odor Strong Brown (7 5 YR 4/6)				
		3	3	Color change to Brown (7 5YR 4/4) with trace gravels				
4 SS	25	5	6	Sand Mostly medium sand some fine sand little coarse sand	SW			
		5	5	Moist loose no odor Brown (7 5YR 5/4)				
		1	1	Coarse sand decreases				
5 SS	33	3	8	Sand Mostly coarse sand some medium sand trace fine sand				
		5	5	and silt Dry loose no odor Light Brown (10YR 5/4)				
6 SS	58	7	10					
		7	7	Same as above with trace gravel				
7 SS	63	3	12		SW			
		4	4	Saturated	SM			
8 SS	42	3	14					
		3	3					
9 SS	46	3	16	Gravel size increases				
		4	4					
		7	7					
			18	End of boring at 18 below ground surface				

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GPJ RMT CORP GDT 5133 06 1/27/09

Signature	Firm RMT INC 2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546 Fax
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Checked By J Overvoorde



WELL CONSTRUCTION LOG

WELL NO MW-7

Page 1 of 1

Facility/Project Name Weyerhaeuser Mill Groundwater Investigation		Date Drilling Started 12/10/08	Date Drilling Completed 12/10/08	Project Number 5133 06
Drilling Firm Mateco Drilling	Drilling Method Hollow Stem Auger	Surface Elev (ft) —	TOC Elevation (ft) —	Total Depth (ft bgs) 12 5
Boring Location		Personnel Logged By SM/KGG Driller Gary Swift		Borehole Dia (in) 4 25
Civil Town/City/or Village Plainwell	County Allegan	State MI	Drilling Equipment CME 55LC	
Water Level Observations		While Drilling Date/Time 12/10/08 00:00 ▽ Depth (ft bgs) 7 75		
After Drilling Date/Time		Depth (ft bgs)		

SAMPLE		BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	COMMENTS
NUMBER AND TYPE	RECOVERY (%)							
1 SS	63	2 2 3 4	2	Fill Topsoil with organics and coal fragments No odor Black (10YR 2/1)				
			2	Fill Mostly medium sand some fine sand little silt gravel brick and concrete fragments				
2 SS	21	4 1 1 1	2	Fill Mostly medium some fine sand little coarse sand trace concrete fragments Pale Brown (10YR 6/3)				
			4	Fill Same sand as above with large brick fragments trace coal and gravels				
3 SS	13	3 3 3 3	4					Poor recovery due to rock in tip
4 SS	58	3 1 1 6	6	Clay Mostly clay some silt Medium plasticity moist Blueish Gray (Gley2 6/1)	CL ML			
			8	Color change to Dark Blueish Gray (GLEY2 4/1)				
5 SS	42	6 8 15 16	8	Fill Lens of crushed concrete with coarse sand and gravel and trace silt Saturated at 7 75	SW SM			
			10	Sand Mostly coarse sand and gravel little fine sand and trace silt Loose saturated				
6 SS	21	4 9 6 11	10	Sand Mostly medium some fine sand Wet Black (7 5YR 2 5/1)	SP			Poor recovery due to rock in tip
			12	Some sand and silt with crushed gravel Brown				
			12	End of boring at 12 5 below ground surface				
			14					
			16					
			18					

SOIL BORING WELL CONSTRUCTION LOG WELL BORING LOGS GPJ RMT CORP GDT 5133 06 12/27/08

Signature	Firm RMT INC 2025 E BELTLINE AVE SE STE 402 GRAND RAPIDS MI 49546
-----------	--

Checked By J Overvoorde

WILKINS & WHEATON TESTING LABORATORY INC

Plainwell Paper Co

KALAMAZOO MICHIGAN

80 A-2

LOG OF BORING NO 1

DATE April 10, 1980

SURFACE ELEV 725 9

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0							
3				FILL Paper waste coal and brick	3 5	722 4	
5				FILL Loose, brown fine to coarse SAND, Trace to and fine gravel Trace coal and brick Concrete rubble at 6 5	12 0	713 9	
10							
15				Medium dense brown fine to coarse SAND, and fine gravel	15 7	710 2	
20							
25							
30							
35							

LOCATION

COMPLETION DEPTH 48 0 WATER DEPTH 15.7 BAR DATE April 10, 1980

WILKINS & WHEATON TESTING LABORATORY INC

KALAMAZOO MICHIGAN

Plainwell Paper Co

80 A-2

LOG OF BORING NO 2

DATE April 7, 1980

SURFACE ELEV 726 4

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0							
8	8			FILL			
12	12			Coal and red brick sand and gravel			
1	1						
5	5						
2	2						
3	3						
5	5				8 0	718 4	
2	2						
3	3						
10				Loose to medium dense, brown fine to coarse SAND trace to and fine gravel			
4	4						
8	8						
15							
8	8						
4	4						
20							
4	4						
5	5						
5	5						
4	4						
6	6						
30							
5	5						
7	7						

COMPLETION DEPTH 48 5

WATER DEPTH 16 5 BAR

DATE April 7, 1980

WILKINS & WHEATON TESTING LABORATORY INC
Plainwell Paper Co KALAMAZOO MICHIGAN

80 A-2

LOG OF BORING NO 2

DATE April 7 1980

SURFACE ELEV 726 4

LOCATION

DEPTH FEET SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT	
39							
40	93		Medium dense, brown fine to coarse SAND, trace to and fine gravel	42 5	683 9		
45	100		Extremely dense, brown fine to coarse SAND, trace to little fine gravel, little to some gray clay	48 5	677 9		
50							

COMPLETION DEPTH 48 5

WATER DEPTH 16 5 BAR

DATE April 7 1980

WILKINS & WHEATON TESTING LABORATORY INC

Plainwell Paper Co

KALAMAZOO MICHIGAN

80 A-2

LOG OF BORING NO 3

DATE April 7, 1980

SURFACE ELEV 726 1

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0							
4	4			COAL			
5	5						
1	1						
1	1						
2	2						
5							
1	1						
0	0						
1	1						
1	1						
7	7				9 5	716 6	
18	18						
10				Medium dense brown fine to coarse SAND, and fine gravel			
6	6						
6	6						
6	6						
15					15 7	710 4	
4	4						
4	4						
5	5						
20							
4	4						
6	6						
5	5						
25							
5	5						
5	5						
30							
12	12						
11	11						
13	13						
35							

COMPRESSION DEPTH 48 0

WATER DEPTH 15 7

DATE April 7 1980

WILKINS & WHEATON TESTING LABORATORY INC

Plainwell Paper Co

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80 A-2

LOG OF BORING NO 3

DATE April 7, 1980

SURFACE ELEV 726 1

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
40	47		o	Medium dense brown fine to coarse SAND, and fine gravel	48 0	683 1	
45	34 83		o	Extremely dense brown fine to coarse SAND trace to little fine gravel little to some gray clay	48 0	678 1	
50							

COMPLETION DEPTH 48 0

WATER DEPTH 15.7

DATE April 7, 1980

WILKINS & WHEATON TESTING LABORATORY INC

KALAMAZOO MICHIGAN

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80 A-2

LOG OF BORING NO 4

DATE April 7 1980

SURFACE ELEV 724 7

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0							
7				FILL			
15				Coal and brick			
4				brown fine to medium sand and			
5				coarse gravel	5 0	719 7	
7				Medium dense to dense,			
6				brown fine to coarse SAND,			
6				and fine to coarse gravel			
14				Occasional cobbles noted			
21							
30							
10							
4							
5							
15					15 3	709 4	
8							
8							
20							
4							
5							
25							
8							
12							
14							
30							
10							
11							
10							
35							

COMPLETION DEPTH 44 0

WATER DEPTH 15 3

DATE April 7, 1980

DATE April 7, 1980

WILKINS & WHEATON TESTING LABORATORY INC
KALAMAZOO MICHIGAN

Plainwell Paper Co

80 A-2

LOG OF BORING NO 5

DATE April 8, 1980

SURFACE ELEV 724 1

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0				FILL			
0.8			▽	Cinders and Ash	3 0	721 1	
3.4			o	Loose to medium dense brown fine to coarse SAND, trace to and fine gravel			
5.4			o				
7.9			o				
10.8			▽		13 3	710 8	
15.6			o				
20.6			o				
25.10			o				
30.12			o				
32.5					32 5	691 6	
35.83			o	Extremely dense, brown fine to coarse SAND, trace to little fine gravel, little to some gray clay			
38.5					38 5	685 6	

38 5

WATER DEPTH 13 3

DATE April 8, 1980

80 A-2

LOG OF BORING NO 6

DATE April 7 1980

SURFACE ELEV 725 7

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0							
2	2			Very loose to loose FILL brown fine to medium SAND, trace fine gravel Coal and concrete rubble			
5	2				7 0	718 7	
10	5			Loose, brown fine to medium SAND, trace fine gravel	12 0	713 7	
15	9			▽	15 7	710 0	
20	8			Medium dense brown fine to coarse SAND, and fine gravel			
25	9						
30	10						
35	12						
					38.0	687.7	
				See Page 2			

See Page 2

COMPLETION DEPTH 44.5

WATER DEPTH 15.7 BAR

DATE April 7, 1980

80 A-2

LOG OF BORING NO 6

DATE April 7, 1980

SURFACE ELEV 725 7

LOCATION _____

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
39			o	Medium dense, brown fine to coarse SAND, and fine gravel	38 0	687 7	
40	36 131		/	Extremely dense, brown fine to coarse SAND, trace to little fine gravel, little to some gray clay			
45	61 100		/		44 5	681 2	

COMPLETION DEPTH 44 5

WATER DEPTH 15 7

DATE April 7, 1980

WILKINS & WHEATON TESTING LABORATORY INC

Plainwell Paper Co

KALAMAZOO MICHIGAN

80 A-2

LOG OF BORING NO 7

DATE April 4 1980

SURFACE ELEV 722 6

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0				Loose to medium dense, brown fine to coarse SAND, trace to and fine gravel			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10				▽	11 3	711 3	
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30				6 Brown sand & clay seam	30 0	692 6	
31					33 0	689 6	
32				Very dense to extremely dense brown fine to coarse SAND, trace to little fine gravel little to some gray clay			
33							
34							
35							

COMPLETION DEPTH 39 5

WATER DEPTH 11 3

DATE April 7, 1980

LOCATION[illegible]

WILKINS & WHEATON TESTING LABORATORY INC
KALAMAZOO MICHIGAN

Plainwell Paper Co

80 A-2

LOG OF BORING NO 8

DATE April 8 1980

SURFACE ELEV 724 3

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0	5			Loose FILL			
1	4			Black and red cinders and brick			
2	2				4 0	720 8	
3	1						
4	2			Very loose to loose FILL			
5	2			Red to brown fine to medium			
6	1			SAND, trace fine gravel			
7	2				9 5	715 8	
8	2						
9	4						
10							
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13							
14							
15							
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98							
99							
100							

COMPLETION DEPTH 40 0

WATER DEPTH 13.4 BAR

DATE April 8, 1980

Plainwell Paper Co

KALAMAZOO MICHIGAN

80 A-2

LOG OF BORING NO 9

DATE April 4, 1980

SURFACE ELEV 721 1

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0				5" Asphalt			
1	12			FILL			
2	10						
3	7						
4	3						
5	2			Loose to medium dense, brown fine to medium SAND, trace to some fine gravel Coal and cinders			
6	2						
7	8						
8	6				8 0	713 1	
9	8						
10	8			▽	9 5	711 6	
11	8			Medium Dense brown fine to coarse SAND and fine gravel			
12	6						
13	12						
14	6						
15	10						
16	10						
17	8						
18	8						
19	7						
20	8						
21	10						
22	10						
23	8						
24	8						
25	7						
26	8						
27	8						
28	15						
29	15						
30	14						
31	15						
32	15						
33	14				33 0	688 1	
34	42						
35	38			Extremely dense, brown fine to coarse SAND, trace to little fine gravel, little to some gray clay			
36	47						

COMPLETION DEPTH 40 0

WATER DEPTH 9 5 BAR

DATE April 4, 1980

LOCATION[illegible]

WILKINS & WHEATON TESTING LABORATORY INC							
Plainwell Paper Co		KALAMAZOO MICHIGAN		80 A-2			
LOG OF BORING NO 10							
DATE April 8 1980		SURFACE ELEV 723 9		LOCATION			
DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0				FILL			
5				Very loose coal and cinders			
10					12 0	711 9	
15				Medium dense, brown fine to coarse SAND, and fine to coarse gravel Occasional cobbles noted	13 0	710 9	
20							
25							
30					33 0	690 9	
35	43 69 102			Extremely dense brown fine to coarse SAND trace to little fine gravel, little to some gray clay	38 5	685 4	

COMPLETION DEPTH 38 5	WATER DEPTH 13 0 BAR	DATE April 8, 1980
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WILKINS & WHEATON TESTING LABORATORY INC

KALAMAZOO MICHIGAN

Plainwell Paper Co

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LOG OF BORING NO 11

DATE April 4 1980

SURFACE ELEV 718 0

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0				FILL			
1	2	1	△	Ash & cinders sand & gravel	3 0	715 0	
5	2	3	○	Loose to dense brown fine to coarse SAND, and fine gravel	7 1	710 9	
4	3	4	○				
10	1	10	▽				
8	1	8	○				
15	5	6	○	Extremely dense, brown fine to coarse SAND, trace to little fine gravel, little to some gray clay	27 5	690 5	
20	7	6	○				
25	5	7	○				
30	6	125	○				
35	3	1	○		35 0	683 0	

COMPLETION DEPTH 35 0

WATER DEPTH 7 1 BAR

DATE April 4, 1980

MILKINS & WHEATON TESTING LABORATORY INC

Plainwell Paper Co

KALAMAZOO MICHIGAN

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LOG OF BORING NO 12

DATE April 10, 1980

SURFACE ELEV 720 4

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0				Very loose to medium dense			
				FILL			
5				sand & gravel			
				coal & cinders			
				brick			
				▽	8 1	712 3	
10					11 5	708 9	
15				Medium dense to dense,			
				dark brown to brown			
				fine to coarse SAND,			
				and fine to coarse gravel			
20							
25							
30							
					32 5	687 9	
35				Very dense to extremely dense,			
				brown fine to coarse SAND,			
				trace to little fine gravel			
				little to some gray clay	36 0	684 4	
				See page 2			

COMPLETION DEPTH 39 0

WATER DEPTH 8 1 BAR

DATE April 10 1980

LOG OF BORING NO 13

DATE April 8, 1980

SURFACE ELEV 722.6

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0				COAL	2 0	720 6	
5				COBBLE at 4' Medium dense, brown fine to coarse SAND, and fine gravel			
10					11 5	711 1	
15							
20							
25							
30							
35							
See Page Two							

COMPLETION DEPTH 45 0

WATER DEPTH 11 5 BAR

DATE April 8 1980

WILKINS & WHEATON TESTING LABORATORY INC

KALAMAZOO MICHIGAN

Plainwell Paper Company

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LOG OF BORING NO 13

DATE April 8, 1980

SURFACE ELEV 722.6

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
35				Medium dense, brown fine to coarse SAND, and fine gravel	38.0	684.6	
40				Extremely dense, brown fine to coarse SAND, trace to little fine gravel, Little to some gray clay	45.0	677.6	
45		57 82 100					

COMPLETION DEPTH

45.0

WATER DEPTH

11.5 BAR

DATE April 8, 1980

LOG OF BORING NO 14

DATE April 8, 1980

SURFACE ELEV 723.4

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0				2' ASPHALT			
1	6306		o	Very loose to dense brown fine to coarse SAND			
2	42		-	Trace to and fine to coarse gravel			
3	1		-				
4	4		-				
5	1		-				
6	3		o				
7	3		o				
8	3		o				
9	3		o				
10	3		o				
11	13		o				
12	13		o				
13	15		o				
14	15		o				
15	15		o				
16	16		o				
17	19		o				
18	20		o				
19	20		o				
20	20		o				
21	20		o				
22	20		o				
23	20		o				
24	20		o				
25	20		o				
26	20		o				
27	20		o				
28	20		o				
29	20		o				
30	20		o				
31	20		o				
32	20		o				
33	20		o				
34	20		o				
35	20		o				
36	20		o				
37	20		o				
38	20		o				
39	20		o				
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41	20		o				
42	20		o				
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49	20		o				
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51	20		o				
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64	20		o				
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70	20		o				
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77	20		o				
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85	20		o				
86	20		o				
87	20		o				
88	20		o				
89	20		o				
90	20		o				
91	20		o				
92	20		o				
93	20		o				
94	20		o				
95	20		o				
96	20		o				
97	20		o				
98	20		o				
99	20		o				
100	20		o				

See Page Two

12.5

710.9

685.4

DATE April 8, 1980

WILKINS & WHEATON TESTING LABORATORY INC

KALAMAZOO MICHIGAN

Plainwell Paper Company

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LOG OF BORING NO 15

DATE April 9, 1980

SURFACE ELEV 723.7

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0				3 ASPHALT			
10				Medium dense, brown fine to medium SAND, Trace to some fine gravel Occasional cobbles noted	5.5	718.2	
5				Very loose, Brown fine to medium SAND, and fine gravel	12.0	711.7	
10					12.7	711.0	
15				Medium dense brown fine to coarse SAND, and fine to coarse gravel Occasional cobbles noted			
20							
25							
30							
35							
				See Page Two	37.0	686.7	

COMPLETION DEPTH 44.0

WATER DEPTH 12.7 BAR

DATE April 9 1980

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DATE April 9, 1980

SURFACE ELEV 723 7

LOCATION

COMPLETION DEPTH 44.0 WATER DEPTH 12 7 BAR DATE April 9, 1980

Plainwell Paper Co

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LOG OF BORING NO 16

DATE April 9, 1980

SURFACE ELEV 722 5

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0							
1	2		△	Very loose to loose FILL			
2	2		△				
3	1		△	Coal and cinders			
4	1		△	sand and gravel			
5	1		△				
6	3		△		7 0	715 5	
7	7		△				
8	5		○				
9	9		○				
10			▽		11 4	711 1	
11	11		○	Medium dense to dense,			
12	9		○	brown fine to coarse sand,			
13	8		○	trace to and fine to coarse			
14			○	gravel			
15			○	Occasional cobbles noted			
16	4		○				
17	27		○				
18			○				
19	9		○				
20	12		○				
21	13		○				
22			○				
23			○				
24	17		○				
25	16		○				
26	16		○				
27			○				
28	8		○				
29	8		○				
30	10		○				
31			○				
32			○				
33			○				
34			○				
35			○	See page 2			

COMPLETION DEPTH 44 5

WATER DEPTH 11 4 BAR

DATE April 9, 1980

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LOG OF BORING NO 16

DATE April 9, 1980

SURFACE ELEV 722 5

LOCATION

DEPTH FEET SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
38 9 10 45		n	Medium dense brown fine to coarse SAND, and fine to coarse gravel	39 5	683 0	
40 136 100		p	Extremely dense brown fine to coarse SAND, trace to little fine gravel, little to some grav clay	44 5	678 0	
45						

COMPLETION DEPTH 44 5

WATER DEPTH 11 4

DATE April 9 1980

LOG OF BORING NO 17

DATE April 10, 1980 SURFACE ELEV 721 2 LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0							
4	1		△	Very loose FILL brown fine to medium SAND trace to little fine gravel Coal and cinders	4.0	717.2	
5	2		■	WOOD			
7	3		■	Possible tree stump	8 0	713 2	
9	4		▽		9 1	712 1	
10	5		△	Medium dense, brown fine to medium SAND, and fine gravel	12.5	708.7	
15	8		■	Medium dense, dark brown fine to medium SAND and fine gravel Trace of Fuel Oil, Trace organic (Old river bottom)	17 0	704 2	
20	10		△	Medium dense to dense, brown fine to coarse sand, and fine to coarse gravel			
25	15		△		28 0	673 2	
30	17		●	Coarse gravel or Cobbles	32 0	689 2	
35	19		△	Extremely dense, brown fine to coarse SAND, trace to little fine gravel, little to some gray clay			
60	60		△		38 5	682 7	

COMPLETION DEPTH 38 5 WATER DEPTH 9 1 BAR DATE April 10, 1980

LOG OF BORING NO 18

DATE April 10, 1980 SURFACE ELEV 718 4 LOCATION _____

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0							
4	4			Loose to medium dense FILL, brown sand and gravel, red brick, concrete cinders			
5	5				5 5	712 9	
8	8			Soft, Dark gray to black ▽ organic river MUCK	8 0	710 4	
10	10			Medium dense, dark gray fine to medium SAND trace to and fine gravel Trace organic matter			
15	15				16 0	701 9	
20	20			Dense to Medium dense, Brown fine to coarse SAND, and fine gravel			
25	25						
30	30				29 5	688 9	
34	34			Extremely dense brown fine to coarse SAND, trace to little fine gravel, little to some gray clay	34 5	683 9	
35							

COMPLETION DEPTH 34 5 WATER DEPTH 8 0 BAR DATE April 10, 1980

LOG OF BORING NO 19

DATE April 10, 1980

SURFACE ELEV 719 6

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0	2	4		Topsoil 2" FILL			
2	4			Sand & Gravel, Coal, Cinders	2 0	717 6	
5	2	4		Loose to medium dense brown fine to coarse SAND trace to and fine to coarse gravel Occasional cobbles noted	7 6	712 0	
6	12						
10	6	5					
15	15						
20	15						
25	11	13					
30	10	9					
33	5	20		Dense, brown fine to coarse SAND, trace to little fine gravel, little to some gray clay	33 0	686 6	
35	20				35 5	684 1	
				See page 2			

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LOG OF BORING NO 19

DATE April 10 1980

SURFACE ELEV 719 6

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
35				See Page 1	35 5	684 1	
40		63 65 100		Extremely dense, brown fine to coarse SAND, and fine gravel	40 0	679 6	

COMPLETION DEPTH 40.0

WATER DEPTH 7.6

DATE April 10, 1980

LOG OF BORING NO 20

DATE April 9, 1980

SURFACE ELEV 720 9

LOCATION

DEPTH FEET	SAMPLES	SAMPLING RESISTANCE	SYMBOL	DESCRIPTION	DEPTH BELOW SURFACE	ELEVATION	NATURAL MOISTURE CONTENT
0				FILL Brown fine to medium SAND, trace to and fine gravel Occasional cobbles noted Coal and cinders	3 0	717 9	
5	224						
10	469			Loose to dense brown fine to coarse SAND, and fine to coarse gravel Occasional cobbles noted	9 4	711 5	
15	889						
20	1216						
25	2120						
30	855						
35	80			Extremely dense brown fine to coarse SAND trace to little fine gravel little to some gray clay	34 0	686 9	
5"	100				38 0	682 9	

COMPLETION DEPTH 39 5

WATER DEPTH 9 4 BAR

DATE April 9, 1980

APPENDIX C

SOIL ANALYTICAL DATA

- C 1 SOIL SCREENING CRITERIA AND SUMMARY OF
EXCEEDANCES
- C 2 SOIL DATA SUMMARY - VOC
- C 3 SOIL DATA SUMMARY – SVOC AND PAH
- C 4 SOIL DATA SUMMARY - METALS
- C 5 SOIL DATA SUMMARY – PCB AND PETROLEUM PRODUCTS



TABLE C 1

**SOIL SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Michigan Act 451 Part 201 Generic Criteria ⁽¹⁾																
	Statewide Default Background	Residential Drinking Water Protection	Industrial and Commercial Drinking Water	Groundwater Surface Water Interface Protection	Soil Volatilization Indoor Air Inhalation Criteria	Direct Contact Industrial and Commercial	N f Samples	N f Detects	Min Value Detect	Max Value Detect	Number of Exceedances of Michigan Act 451 Part 201 Generic Cleanup Criteria					
Units		b		d		f					b	c	d	f		
Volatile Organic Compounds																
Acetone	mg/kg	NC	15	42	34	110000	73000	20	5	0.055	0.41	0	0	0	0	0
Acrylonitrile	mg/kg	NC	0.1	0.22	0.1	35	74	2	0	—	—	0	0	0	0	0
Benzene	mg/kg	NC	0.1	0.1	4	84	400	27	2	0.036	0.056	0	1	1	0	0
Bromobenzene	mg/kg	NC	0.55	1.5	NC	580	760	8	0	—	—	0	0	0	0	0
Bromodichloromethane	mg/kg	NC	1.6	1.6	ID	64	490	20	0	—	—	0	0	0	0	0
Bromof orm	mg/kg	NC	1.6	1.6	ID	770	870	20	0	—	—	0	0	0	0	0
Bromomethane (Methyl Bromide)	mg/kg	NC	0.2	0.58	0.7	16	1000	10	0	—	—	0	0	0	0	0
2-Butanone (Methyl Ethyl Ketone)	mg/kg	NC	260	760	44	27000	27000	10	2	0.26	0.3	0	0	0	0	0
n-Butylbenzene	mg/kg	NC	1.6	4.6	ID	ID	8000	8	2	0.031	0.081	0	0	0	0	0
tert-Butylbenzene	mg/kg	NC	1.6	4.6	NC	ID	8000	8	1	0.02	0.02	0	1	1	0	0
Carbon disulfide	mg/kg	NC	16	46	ID	140	280	20	0	—	—	0	0	0	0	0
Carbon tetrachloride	mg/kg	NC	0.1	0.1	0.9	0.99	390	20	0	—	—	0	0	0	0	0
Chlorobenzene	mg/kg	NC	2	2	0.94	220	260	20	0	—	—	0	0	0	0	0
Chlorobromomethane	mg/kg	NC	NC	NC	NC	NC	NC	8	0	—	—	NA	NA	NA	NA	NA
Chloroethane	mg/kg	NC	8.6	34	ID	950	950	20	1	0.011	0.011	0	0	0	0	0
2-Chloroethyl vinyl ether	mg/kg	NC	ID	ID	NC	ID	ID	2	0	—	—	0	0	0	0	0
Chloroform (Trichloromethane)	mg/kg	NC	1.6	1.6	34	38	1500	20	0	—	—	0	0	0	0	0
Chloromethane (Methyl Chloride)	mg/kg	NC	5.2	22	ID	10	1100	20	0	—	—	0	0	0	0	0
2-Chlorotoluene	mg/kg	NC	3.3	9.3	NC	500	500	6	0	—	—	0	0	0	0	0
4-Chlorotoluene	mg/kg	NC	NC	NC	NC	NC	NC	6	0	—	—	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	mg/kg	NC	NC	NC	NC	NC	NC	8	0	—	—	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	NC	1.6	1.6	ID	21	500	20	0	—	—	0	0	0	0	0
Dibromomethane	mg/kg	NC	1.6	4.6	NC	ID	2000	8	0	—	—	0	0	0	0	0
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	0.01	0.01	NC	1.2	1.2	8	0	—	—	0	0	0	0	0
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	0.02	0.02	0.02	3.6	0.43	8	0	—	—	0	0	0	0	0
1,2-Dichlorobenzene	mg/kg	NC	14	14	0.36	210	210	8	0	—	—	0	0	0	0	0
1,3-Dichlorobenzene	mg/kg	NC	0.17	0.48	1.1	ID	170	8	0	—	—	0	0	0	0	0
1,4-Dichlorobenzene	mg/kg	NC	1.7	1.7	0.29	100	1900	8	0	—	—	0	0	0	0	0
trans-1,4-Dichlorobenzene	mg/kg	NC	NC	NC	NC	NC	NC	2	0	—	—	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC 12)	mg/kg	NC	95	270	ID	1700	1000	8	0	—	—	0	0	0	0	0
1,1-Dichloroethane	mg/kg	NC	18	50	15	430	890	10	0	—	—	0	0	0	0	0
1,2-Dichloroethane	mg/kg	NC	0.1	0.1	7.2	11	420	10	0	—	—	0	0	0	0	0
1,1-Dichloroethene	mg/kg	NC	0.14	0.14	1.3	0.33	570	10	0	—	—	0	0	0	0	0
cis-1,2-Dichloroethene	mg/kg	NC	14	14	12	41	640	20	0	—	—	0	0	0	0	0
trans-1,2-Dichloroethene	mg/kg	NC	2	2	30	43	1400	20	0	—	—	0	0	0	0	0
1,1-Dichloropropene	mg/kg	NC	NC	NC	NC	NC	NC	6	0	—	—	0	0	0	0	0
1,2-Dichloropropane	mg/kg	NC	0.1	0.1	5.8	7.4	550	10	0	—	—	0	0	0	0	0
cis-1,2-Dichloropropene	mg/kg	NC	NC	NC	NC	NC	NC	14	0	—	—	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	NC	NC	NC	NC	NC	NC	20	0	—	—	NA	NA	NA	NA	NA
1,3-Dichloropropane	mg/kg	NC	NC	NC	NC	NC	NC	6	0	—	—	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NC	NC	NC	NC	NC	NC	6	2	0.022	0.057	NA	NA	NA	NA	NA
2,2-Dichloropropane	mg/kg	NC	NC	NC	NC	NC	NC	6	0	—	—	NA	NA	NA	NA	NA
Ethyl Ether	mg/kg	NC	0.2	0.2	ID	7400	7400	2	4	0.074	0.34	0	0	0	0	0
Ethylbenzene	mg/kg	NC	1.5	1.5	0.36	140	140	25	0	—	—	0	0	0	0	0
Hexachlorobutadiene	mg/kg	NC	26	72	0.091	350	350	6	0	—	—	0	0	0	0	0

TABLE C.1

**SOIL SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL MICHIGAN**

Volatile Organic Compounds on file	Limits	Michigan Act 451 Part 201 Generic Criteria ^(a)										Number of Exceedances of					
		Statewide Default	Residential	Industrial and Commercial	Groundwater	Soil Vapor Inhalation	Direct Contact	N of Samples	No. of Detects	Min Value Detected	Max Value Detected	Michigan Act 451 Part 201 Generic Cleanup Criteria					
		Background	Drinking Water Protection	Drinking Water	Surface Water Interface Protection	to Indoor Air	Industrial and Commercial					b	c	d	e	f	g
2 Hexanone	mg/kg	NC	20	58	NC	1800	2500	10	0	—	—	0	0	0	0	0	0
1,4-dimethane	mg/kg	NC	NC	NC	NC	NC	NC	2	2	0.03	0.069	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NC	91	260	ID	390	390	8	5	0.1	1.7	0	0	0	0	0	0
Methyl Tert Butyl Ether	mg/kg	NC	0.8	0.8	15	5900	5900	2	0	—	—	0	0	0	0	0	0
Methylen chloride	mg/kg	NC	0.1	0.1	19	240	2300	20	2	0.49	1	0	0	0	0	0	0
2-Methylnaphthalene	mg/kg	NC	57	170	ID	ID	26000	2	2	1.2	1.2	0	0	0	0	0	0
4-Methyl 2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	36	100	ID	2700	2700	10	0	—	—	0	0	0	0	0	0
Naphthalene	mg/kg	NC	35	100	0.87	470	52000	8	2	0.038	0.092	0	0	0	1	0	0
2-Phenylbutane (sec-Butylbenzene)	mg/kg	NC	1.6	4.6	ID	ID	8000	8	1	0.026	0.026	0	0	0	0	0	0
n-Propylbenzene	mg/kg	NC	1.6	4.6	NC	ID	8000	8	2	0.031	0.081	0	0	0	0	0	0
Styrene	mg/kg	NC	2.7	2.7	2.2	520	520	20	0	—	—	0	0	0	0	0	0
1,1,1,2-Tetrachloroethane	mg/kg	NC	1.5	6.4	ID,X	33	440	8	0	—	—	0	0	0	0	0	0
1,1,2,2-Tetrachloroethane	mg/kg	NC	0.17	0.7	1.6	23	240	10	0	—	—	0	0	0	0	0	0
Tetrachloroethene	mg/kg	NC	0.1	0.1	0.9	60	88	20	2	0.25	0.5	0	0	0	0	0	0
Tetrahydrofuran	mg/kg	NC	1.9	5.4	220	2400	9500	2	10	0.0053	2	0	0	0	0	0	0
Trichloroethene	mg/kg	NC	16	16	2.8	250	250	25	0	—	—	0	0	0	0	0	0
1,2,3-Trichlorobenzene	mg/kg	NC	NC	NC	NC	NC	NC	8	0	—	—	0	0	0	0	0	0
1,2,4-Trichlorobenzene	mg/kg	NC	4.2	4.2	1.8	1100	1100	8	0	—	—	0	0	0	0	0	0
1,1,1-Trichloroethane	mg/kg	NC	4	4	4	460	460	10	0	—	—	0	0	0	0	0	0
1,1,2-Trichloroethane	mg/kg	NC	0.1	0.1	6.6	24	840	20	0	—	—	0	0	0	0	0	0
Trichloroethene	mg/kg	NC	0.1	0.1	4	37	500	20	0	—	—	0	0	0	0	0	0
Trichlorofluoromethane (CFC 11)	mg/kg	NC	52	150	NC	560	560	20	1	0.52	0.52	0	1	1	0	0	0
1,2,3-Trichloropropane	mg/kg	NC	0.84	2.4	NC	ID	830	8	0	—	—	0	0	0	0	0	0
1,2,4-Trimethylbenzene	mg/kg	NC	2.1	2.1	0.57	110	110	13	4	0.24	0.68	0	0	0	1	0	0
1,3,5-Trimethylbenzene	mg/kg	NC	1.8	1.8	1.1	94	94	13	3	0.075	0.16	0	0	0	0	0	0
Vinyl acetate	mg/kg	NC	13	36	NC	1500	2400	12	1	0.012	0.012	0	0	0	0	0	0
Vinyl chloride	mg/kg	NC	0.04	0.04	0.3	2.8	34	20	0	—	—	0	0	0	0	0	0
m,p-Xylene	mg/kg	NC	NC	NC	NC	NC	NC	13	0	—	—	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	NC	5.6	5.6	0.7	150	150	13	5	0.063	1.1	0	0	0	1	0	0
Xylene (total)	mg/kg	NC	5.6	5.6	0.7	150	150	2	0	—	—	0	0	0	0	0	0

TABLE C 1

**SOIL SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL MICHIGAN**

Michigan Act 451, Part 201 General Criteria ⁽¹⁾																
	Statewide Default Background	Residential Drinking Water Protection ^b	Industrial and Commercial Drinking Water	Groundwater Surface Water Interface Protection ^d	Soil Volatilization to Indoor Air Inhalation Criteria	Direct Contact Industrial and Commercial II ^f	N of Samples	N of Detects	Min Value Detect	Max Value Detect	Number of Exceedances of Michigan Act 451, Part 201 General Cleanup Criteria					
Units											b		d		f	
Semi-Volatile Organic Compounds																
Acenaphthene	mg/kg	NC	300	880	4.4	350000	130000	39	11	0.02	0.39	0	0	0	0	0
Acenaphthylene	mg/kg	NC	5.9	17	ID	3000	5200	39	12	0.0049J	0.96	0	0	0	0	0
Anthracene	mg/kg	NC	41	41	ID	1000000	730000	39	25	0.00082	1.3	0	0	0	0	0
Benzo(a)anthracene	mg/kg	NC	NLL	NLL	NLL	NLV	80	39	27	0.0016	26	0	0	0	0	0
Benzo(b)pyrene	mg/kg	NC	NLL	NLL	NLL	NLV	8	39	30	0.0024	24	0	0	0	0	1
Benzo(b)fluoranthene	mg/kg	NC	NLL	NLL	NLL	ID	80	39	29	0.0031	19	0	0	0	0	0
Benzo(g,h,i)perylene	mg/kg	NC	NLL	NLL	NLL	NLV	7000	39	27	0.018	14	0	0	0	0	0
Benzo(k)fluoranthene	mg/kg	NC	NLL	NLL	NLL	NLV	800	39	26	0.0036	2.8	0	0	0	0	0
2-Chlorophenol	mg/kg	NC	0.9	2.6	0.44	ID	4500	4	0	—	—	0	0	0	0	0
4-Chloro-3-methylphenol	mg/kg	NC	5.8	16	0.28	NLV	15000	4	0	—	—	0	0	0	0	0
Chrysene	mg/kg	NC	NLL	NLL	NLL	ID	8000	39	28	0.0031J	28	0	0	0	0	0
Dibenz(a,h)anthracene	mg/kg	NC	NLL	NLL	NLL	NLV	8	39	27	0.0036	6.4	0	0	0	0	0
Dibenzofuran	mg/kg	NC	ID	ID	1.7	ID	ID	8	8	0.03	0.43	0	0	0	0	0
2,4-Dichlorophenol	mg/kg	NC	1.5	4.2	0.38	NLV	1800	4	0	—	—	0	0	0	0	0
2,4-Dimethylphenol	mg/kg	NC	7.4	20	7.6	NLV	36000	4	0	—	—	0	0	0	0	0
3,4-Dimethylphenol	mg/kg	NC	0.33	0.58	NC	NLV	1000	4	0	—	—	0	0	0	0	0
4,6-Dinitro-2-methylphenol	mg/kg	NC	0.83	0.83	NC	NLV	260	4	0	—	—	0	0	0	0	0
2,4-Dinitrophenol	mg/kg	NC	NC	NC	NC	NC	NC	4	0	—	—	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NC	730	730	5.5	1000000	130000	39	11	0.075J	7.7	0	0	0	1	0
Fluorene	mg/kg	NC	390	890	5.3	1000000	87000	39	12	0.0054J	0.9	0	0	0	0	0
Indeno(1,2,3-cd)pyrene	mg/kg	NC	NLL	NLL	NLL	NLV	80	39	12	0.015J	6.4	0	0	0	0	0
1-Methylnaphthalene	mg/kg	NC	NC	NC	NC	NC	NC	22	0	—	—	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NC	57	170	ID	ID	26000	34	15	0.02	7.4	0	0	0	0	0
2-Methylphenol	mg/kg	NC	7.4	20	1.4	NLV	36000	4	3	0.0013J	0.0013	0	0	0	0	0
Naphthalene	mg/kg	NC	35	100	0.87	470	52000	39	21	0.0088	7.6	0	0	0	2	0
2-Nitrophenol	mg/kg	NC	0.4	1.2	ID	NLV	2000	4	0	—	—	0	0	0	0	0
4-Nitrophenol	mg/kg	NC	NC	NC	NC	NC	NC	4	0	—	—	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NC	0.022	0.022	G,X	NLV	320	4	0	—	—	0	0	0	0	0
Phenanthrene	mg/kg	NC	56	160	5.3	5100	5200	39	30	0.007	15	0	0	0	3	0
Phenol	mg/kg	NC	88	260	4.2	NLV	12000	4	0	—	—	0	0	0	0	0
Pyrene	mg/kg	NC	480	480	ID	1000000	84000	39	23	0.027	31	0	0	0	0	0
2,4,5-Trichlorophenol	mg/kg	NC	39	110	NC	NLV	73000	4	0	—	—	0	0	0	0	0
2,4,6-Trichlorophenol	mg/kg	NC	2.4	9.4	0.33	NLV	3300	4	0	—	—	0	0	0	0	0

TABLE C 1

**SOIL SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

		Michigan Act 451 Part 201 Generic Criteria ^{a)}										Number of Exceedances of					
		Statewide Default Background	Residential Drinking Water Protection	Industrial and Commercial Drinking W ter	Groundwater Surface Water Interface Protection	Soil V latiluzatio to Indoor Air Inhalation Criteri	Direct Contact Industrial and Commercial II	No. of Samples	No. of Detects	Min V lue Detect	Max V lue Detect	Michigan Act 451 P rt 201 Generic Cleanup Criteria					
Units			b		d		f					b		d		f	
Petroleum Products																	
TPH extractabl (DRO)	mg/kg	NC	NC	NC	NC	NC	NC	25	25	37	14000	NA	NA	NA	NA	NA	NA
TPH (C10-C28) DRO	mg/kg	NC	NC	NC	NC	NC	NC	0	0	—	—	NA	NA	NA	NA	NA	NA
TPH Non P lar Material SGT HEM	mg/kg	NC	NC	NC	NC	NC	NC	0	0	—	—	NA	NA	NA	NA	NA	NA
TPH purgeable (GRO)	mg/kg	NC	NC	NC	NC	NC	NC	25	5	3	13	NA	NA	NA	NA	NA	NA
TPH (C6-C10) GRO	mg/kg	NC	NC	NC	NC	NC	NC	0	0	—	—	NA	NA	NA	NA	NA	NA
PCBs																	
Aroclor 1016 (PCB-1016)	mg/kg	NC	NLL	NLL	NLL	16000	16	36	4	0.029	0.12	0	0	0	0	0	0
Aroclor-1221 (PCB-1221)	mg/kg	NC	NLL	NLL	NLL	16000	16	35	2	0.051	0.051	0	0	0	0	0	0
Aroclor 1232 (PCB-1232)	mg/kg	NC	NLL	NLL	NLL	16000	16	34	1	0.47	0.47	0	0	0	0	0	0
Aroclor-1242 (PCB-1242)	mg/kg	NC	NLL	NLL	NLL	16000	16	34	2	0.065	0.094	0	0	0	0	0	0
Arocl r-1248 (PCB-1248)	mg/kg	NC	NLL	NLL	NLL	16000	16	33	0	—	—	0	0	0	0	0	0
Aroclor-1254 (PCB-1254)	mg/kg	NC	NLL	NLL	NLL	16000	16	34	18	0.025	270 J	0	0	0	0	0	2
Aroclor 1260 (PCB-1260)	mg/kg	NC	NLL	NLL	NLL	16000	16	33	6	0.019	0.61	0	0	0	0	0	0
Total PCB	mg/kg	NC	NLL	NLL	NLL	16000	16	56	41	0.01	5.6	0	0	0	0	0	0
SPLP PCB																	
Aroclor-1016 (PCB-1016)	mg/L	NC	NC	NC	NC	NC	NC	3	0	—	—	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221)	mg/L	NC	NC	NC	NC	NC	NC	2	0	—	—	NA	NA	NA	NA	NA	NA
Aroclor 1232 (PCB-1232)	mg/L	NC	NC	NC	NC	NC	NC	2	0	—	—	NA	NA	NA	NA	NA	NA
Aroclor 1242 (PCB-1242)	mg/L	NC	NC	NC	NC	NC	NC	2	0	—	—	NA	NA	NA	NA	NA	NA
Arocl r-1248 (PCB-1248)	mg/L	NC	NC	NC	NC	NC	NC	2	0	—	—	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254)	mg/L	NC	NC	NC	NC	NC	NC	2	0	—	—	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260)	mg/L	NC	NC	NC	NC	NC	NC	2	0	—	—	NA	NA	NA	NA	NA	NA

TABLE C 1

**SOIL SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC. MILL PROPERTY
PLAINWELL, MICHIGAN**

<i>Michigan Act 451 Part 201 Generic Criteria ^(a)</i>																
	<i>Statewide Default Background</i>	<i>Residential Drinking Water Protection b</i>	<i>Industrial and Commercial I Drinking Water</i>	<i>Groundwater Surface Water Interface Protection d</i>	<i>Soil Volatilization to Indoor Air Inhalation Criteria</i>	<i>Direct Contact Industrial and Commercial II f</i>	<i>No. of Samples</i>	<i>No. of Detects</i>	<i>Min Value Detect</i>	<i>Max Value Detect</i>	<i>Number of Exceedances of Michigan Act 451, Part 201 Generic Cleanup Criteria</i>					
<i>Units</i>											<i>b</i>	<i>d</i>	<i>f</i>			
Metals																
Arsenic	mg/kg	5.8	4.6	4.6	70	NLV	32	24	0.74	16	0	8	8	0	0	0
Barium	mg/kg	75	1300	1300	GX	NLV	1	1	46	233	0	0	0	0	0	0
Cadmium	mg/kg	1.2	6	6	GX	NLV	30	28	0.018 J	7	0	1	1	0	0	0
Chromium Total	mg/kg	18	30	30	3.3	NLV	32	32	3.8	75	0	2	2	6	0	0
Copper	mg/kg	32	5800	5800	G	NLV	25	19	2.8	350	0	0	0	0	0	0
Lead	mg/kg	21	700	700	GX	NLV	44	44	1.9	390	0	1	1	0	0	1
Mercury	mg/kg	0.13	1.7	1.7	0.1	89	30	18	0.020 J	6	0	3	3	14	0	0
Selenium	mg/kg	0.41	4	4	0.4	NLV	32	16	0.1	2	0	0	0	10	0	0
Silver	mg/kg	1	4.5	13	0.1	NLV	7	3	1	1	0	0	0	0	0	0
Zinc	mg/kg	47	2400	5000	G	NLV	25	16	15	620	0	0	0	0	0	0

TABLE C 1

**SOIL SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Notes.

- parameter not analyzed
- NC Michigan Act 451 Part 201 Cleanup Criteria exists for this parameter
- T value reported is less than criteria of detection
- (1) Clean up criteria identified by MDEQ RRD Op Memo N 1 updated 1/23/2006 pursuant to 1994 PA 451 as amended
- mg/kg milligrams per kilogram (parts per million)
- TPH Total Petroleum Hydrocarbons
- NA Not Applicable
- U Not present or below the associated value.
- J Estimated Concentration
- G Groundwater surface water interface (GSI) criterion depends on the pH or water hardness or both, of the receiving surface water
- ID means insufficient data to develop criterion
- NLV chemical is not likely to volatilize
- X The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as drinking water source
- SPLP synthetic precipitation leaching procedure
- D indicates data reported from diluted sample
- P indicates result taken from the highest of the two columns

Michigan Act 451, Part 201 Generic Criteria

- Statewide Default Background
- b Residential Drinking Water Protection
 - Industrial and commercial drinking water
- d Groundwater Surface Water Interface Protection
 - Soil Volatilization to Indoor Air Inhalation Criteria
- f Direct Contact Industrial and Commercial II

TABLE C.2
SOIL DATA SUMMARY VOCs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL MICHIGAN

Sample Location	Sample #1	Sample #2	Sample #2	Sample #2	Sample #3	Sample #4	Sample #5	SB-6	SB-6	SBA 1A	SBA 1C/D	SBA 2A
Sample Date	06/1999	06/1999	06/1999	06/1999	06/1999	06/1999	06/1999	2006	2006	1997	1997	1997
Sample Depth (feet bgs)		(0.7)	(1.5)					(0-1)	(0-1)	(0-2)	(4-8)	(0-2)
Sample Type									Duplicate			
Acetone	mg/kg	—	—	—	—	—	—	0.41 J	0.31 J	0.025 U	0.025 U	0.025 U
Acrylonitrile	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	—	—	—
Benzene	mg/kg	0.05 U	0.05 U	0.05 U	0.12 ^{nc}	0.05 U	0.05 U	0.056	0.036 J	0.005 U	0.005 U	0.005 U
Bromobenzene	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	—	—	—
Bromodichloromethane	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	0.005 U	0.005 U	0.005 U
Bromoform	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	0.005 U	0.005 U	0.005 U
Bromomethane (Methyl Bromide)	mg/kg	—	—	—	—	—	—	0.22 U	0.22 U	—	—	—
2-Butanone (Methyl Ethyl Ketone)	mg/kg	—	—	—	—	—	—	0.3 J	0.26 J	—	—	—
n-Butylbenzene	mg/kg	—	—	—	—	—	—	0.092	0.038 J	—	—	—
tert-Butylbenzene	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	—	—	—
Carbon disulfide	mg/kg	—	—	—	—	—	—	0.27 U	0.27 U	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	0.005 U	0.005 U	0.005 U
Chlorobenzene	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	0.005 U	0.005 U	0.005 U
Chlorobromomethane	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	—	—	—
Chloroethane	mg/kg	—	—	—	—	—	—	0.27 U	0.27 U	0.005 U	0.005 U	0.005 U
2-Chloroethyl vinyl ether	mg/kg	—	—	—	—	—	—	—	—	—	—	—
Chloroform (Trichloromethane)	mg/kg	—	—	—	—	—	—	0.011 J	0.055 U	0.005 U	0.005 U	0.005 U
Chloromethane (Methyl Chloride)	mg/kg	—	—	—	—	—	—	0.27 U	0.27 U	0.005 U	0.005 U	0.005 U
2-Chlorotoluene	mg/kg	—	—	—	—	—	—	—	—	—	—	—
4-Chlorotoluene	mg/kg	—	—	—	—	—	—	—	—	—	—	—
Cymene (p-Isopropyltoluene)	mg/kg	—	—	—	—	—	—	0.057 J	0.022 J	—	—	—
Dibromochloromethane	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	0.005 U	0.005 U	0.005 U
Dibromomethane	mg/kg	—	—	—	—	—	—	0.27 U	0.27 U	—	—	—
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	—	—	—
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	—	—	—
1,2-Dichlorobenzene	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	—	—	—
1,3-Dichlorobenzene	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	—	—	—
1,4-Dichlorobenzene	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	—	—	—
trans-1,4-Dichloro-2-butene	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	—	—	—
Dichlorodifluoromethane (CFC-12)	mg/kg	—	—	—	—	—	—	0.27 U	0.27 U	—	—	—
1,1-Dichloroethane	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	—	—	—
1,2-Dichloroethane	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	—	—	—
1,1-Dichloroethene	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	—	—	—
cis-1,2-Dichloroethene	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	0.005 U	0.005 U	0.005 U
trans-1,2-Dichloroethene	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	0.005 U	0.005 U	0.005 U
1,1-Dichloropropene	mg/kg	—	—	—	—	—	—	—	—	—	—	—
1,2-Dichloropropene	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	—	—	—
cis-1,2-Dichloropropene	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	0.005 U	0.005 U	0.005 U
trans-1,3-Dichloropropene	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	0.005 U	0.005 U	0.005 U
1,3-Dichloropropene	mg/kg	—	—	—	—	—	—	—	—	—	—	—
cis-1,3-Dichloropropene	mg/kg	—	—	—	—	—	—	—	—	—	—	—
2,2-Dichloropropane	mg/kg	—	—	—	—	—	—	—	—	—	—	—
Ethyl Ether	mg/kg	—	—	—	—	—	—	0.22 U	0.22 U	—	—	—
Ethylbenzene	mg/kg	0.05 U	—	—	0.34	0.086	0.05 U	0.19	0.074	0.005 U	0.005 U	0.005 U
Hexachlorobutadiene	mg/kg	—	—	—	—	—	—	—	—	—	—	—

TABLE C.2

**SOIL DATA SUMMARY VOCs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location Sample Depth (feet bgs) Sample Type	Sample #1 06/1999	Sample #2 06/1999 (0.7)	Sample #2 06/1999 (1.5)	Sample #2 06/1999	Sample #3 06/1999	Sample #4 06/1999	Sample #5 06/1999	SB-6 2006 (0-1)	SB-6 2006 (0-1) <i>Duplicate</i>	SBA 1A 1997 (0-2)	SBA 1C/D 1997 (4-8)	SBA 2A 1997 (0-2)
	<i>Units</i>											
2 Hexanone	mg/kg	—	—	—	—	—	—	2.7 U	2.7 U	—	—	—
1,4-dimethan	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	—	—	—
Isopropylbenzene	mg/kg	—	—	—	—	—	—	0.069 J	0.03 J	—	—	—
Methyl Tert Butyl Ether	mg/kg	—	—	—	—	—	—	0.27 U	0.27 U	—	—	—
Methylene chloride	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	0.005 U	0.005 U	0.005 U
2-Methylnaphthalene	mg/kg	—	—	—	—	—	—	1.2	1.2	—	—	—
4-Methyl 2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	—	—	—	—	—	—	2.7 U	2.7 U	—	—	—
Naphthalene	mg/kg	—	—	—	—	—	—	1	0.49	—	—	—
2-Phenylbutane (sec Butylbenzene)	mg/kg	—	—	—	—	—	—	0.026 J	0.055 U	—	—	—
n-Propylbenzene	mg/kg	—	—	—	—	—	—	0.081 J	0.031 J	—	—	—
Styrene	mg/kg	—	—	—	—	—	—	0.056 U	0.055 U	0.005 U	0.005 U	0.005 U
1,1,1,2-Tetrachloroethane	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	—	—	—
1,1,2,2-Tetrachloroethane	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	—	—	—
Tetrachloroethene	mg/kg	—	—	—	—	—	—	0.02 J	0.055 U	0.005 U	0.005 U	0.005 U
Tetrahydrofuran	mg/kg	—	—	—	—	—	—	0.5 J	0.25 J	—	—	—
Trichloroethene	mg/kg	0.15	—	—	2	0.41	0.1 U	0.1 U	0.65	0.058	0.005 U	0.067
1,2,3-Trichlorobenzene	mg/kg	—	—	—	—	—	—	0.36 U	0.36 U	—	—	—
1,2,4-Trichlorobenzene	mg/kg	—	—	—	—	—	—	0.36 U	0.36 U	—	—	—
1,1,1-Trichloroethane	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	—	—	—
1,1,2-Trichloroethane	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	0.005 U	0.005 U	0.005 U
Trichloroethene	mg/kg	—	—	—	—	—	—	0.055 U	0.055 U	0.005 U	0.005 U	0.005 U
Trichlorofluoromethane (CFC 11)	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	0.01 U	0.01 U	0.01 U
1,2,3-Trichloropropane	mg/kg	—	—	—	—	—	—	0.11 U	0.11 U	—	—	—
1,2,4-Trimethylbenzene	mg/kg	0.1 U	—	—	0.68	0.27	0.1 U	0.1 U	0.54	—	—	—
1,3,5-Trimethylbenzene	mg/kg	0.1 U	—	—	0.15	0.1 U	0.1 U	0.1 U	0.16	—	—	—
Vinyl acetate	mg/kg	—	—	—	—	—	—	—	—	0.005 U	0.005 U	0.005 U
Vinyl chloride	mg/kg	—	—	—	—	—	—	0.044 U	0.044 U	0.005 U	0.005 U	0.012
m,p-Xylene	mg/kg	0.1	—	—	1.7	0.51	0.1 U	0.1 U	0.97	—	—	—
o-Xylene	mg/kg	0.063	—	—	1.1	0.35	0.05 U	0.05 U	0.67	—	—	—
Xylene (total)	mg/kg	—	—	—	—	—	—	—	—	—	—	—

TABLE C.2
SOIL DATA SUMMARY VOCs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

<i>Sample Location</i>		<i>SBA 2D</i>	<i>SBA-3A</i>	<i>SBA 3F</i>	<i>SBA-4B</i>	<i>SBA-4C/D</i>	<i>SBA-5A</i>	<i>SBA-5F</i>	<i>SBG-1A/B</i>	<i>SBG-1C/D</i>	<i>TP-5</i>	<i>TP 17</i>
<i>Sample Date</i>		<i>1997</i>	<i>1997</i>	<i>1997</i>	<i>1997</i>	<i>1997</i>	<i>1997</i>	<i>1997</i>		<i>1997</i>	<i>11/11/2008</i>	<i>11/12/2008</i>
<i>Sample Depth (feet bgs)</i>		<i>(2-4)</i>	<i>(0-2)</i>	<i>(10-12)</i>	<i>(2-4)</i>	<i>(4-8)</i>	<i>(0-2)</i>	<i>(10-12)</i>	<i>(0-4)</i>	<i>(4-8)</i>	<i>(6)</i>	<i>(7)</i>
<i>Sample Type</i>												
	<i>Units</i>											
A etone	mg/kg	0 025 U	0 025 U	0 025 U	0 025 U	0 025 U	0 025 U	0 025 U	0 025 U	0 025 U	0 19	0 033 U
Acryl nitril	mg/kg	—	—	—	—	—	—	—	—	—	—	—
Benzene	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
Bromobenzene	mg/kg	—	—	—	—	—	—	—	—	—	0 013 U	0 0082 U
Bromodl chloromethan	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
Bromoform	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
Bromomethane (Methyl Bromide)	mg/kg	—	—	—	—	—	—	—	0 005 U	0 005 U	0 013 U	0 0082 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	—	—	—	—	—	—	—	0 01 U	0 01 U	0 05 U	0 033 U
n-Butylbenzene	mg/kg	—	—	—	—	—	—	—	—	—	0 05 U	0 033 U
tert Butylbenzene	mg/kg	—	—	—	—	—	—	—	—	—	0 05 U	0 033 U
Carbo disulfid	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
Carbon tetrachlorid	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
Chlorobenzene	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
Chlorobromomethane	mg/kg	—	—	—	—	—	—	—	—	—	0 013 U	0 0082 U
Chloroethane	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
2-Chl roethyl nyl ether	mg/kg	—	—	—	—	—	—	—	0 01 U	0 01 U	—	—
Chlorof rm (Trichloromethane)	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
Chloromethane (Methyl Chlorid)	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
2-Chlorotoluene	mg/kg	—	—	—	—	—	—	—	—	—	0 05 U	0 033 U
4-Chl rotoluene	mg/kg	—	—	—	—	—	—	—	—	—	0 05 U	0 033 U
Cymene (p-Isopropyltoluene)	mg/kg	—	—	—	—	—	—	—	—	—	0 05 U	0 033 U
D bromochloromethane	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
Dibromomethane	mg/kg	—	—	—	—	—	—	—	—	—	0 013 U	0 0082 U
1,2 Dibromo-3-chloropropane (DBCP)	mg/kg	—	—	—	—	—	—	—	—	—	0 05 U	0 033 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	—	—	—	—	—	—	—	—	—	0 05 U	0 033 U
1,2 Dichlorobenzene	mg/kg	—	—	—	—	—	—	—	—	—	0 013 U	0 0082 U
1,3-Dichlorobenzen	mg/kg	—	—	—	—	—	—	—	—	—	0 013 U	0 0082 U
1,4-Dichlorobenzen	mg/kg	—	—	—	—	—	—	—	—	—	0 013 U	0 0082 U
trans-1,4-Dichloro-2 butene	mg/kg	—	—	—	—	—	—	—	—	—	—	—
Dichlorodifl romethane (CFC 12)	mg/kg	—	—	—	—	—	—	—	—	—	0 013 U	0 0082 U
1 1 Dichloroethane	mg/kg	—	—	—	—	—	—	—	0 005 U	0 005 U	0 013 U	0 0082 U
1,2-Dichloroethan	mg/kg	—	—	—	—	—	—	—	0 005 U	0 005 U	0 013 U	0 0082 U
1 1 Dichloroethene	mg/kg	—	—	—	—	—	—	—	0 005 U	0 005 U	0 013 U	0 0082 U
cis-1,2 Dichloroethene	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
trans-1,2 Dichl roethene	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
1 1 Dichloropropene	mg/kg	—	—	—	—	—	—	—	—	—	0 013 U	0 0082 U
1,2 Dichloropropan	mg/kg	—	—	—	—	—	—	—	0 005 U	0 005 U	0 013 U	0 0082 U
cis-1,2 Dichl ropropene	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	—	—
trans-1,3-Di hloropropene	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
1,3-Dichl ropropan	mg/kg	—	—	—	—	—	—	—	—	—	0 013 U	0 0082 U
cis-1,3-Dichloropropene	mg/kg	—	—	—	—	—	—	—	—	—	0 013 U	0 0082 U
2,2 Dichl ropropene	mg/kg	—	—	—	—	—	—	—	—	—	0 013 U	0 0082 U
Ethyl Ether	mg/kg	—	—	—	—	—	—	—	—	—	—	—
Ethylbenzene	mg/kg	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 005 U	0 013 U	0 0082 U
Hexachl robutad en	mg/kg	—	—	—	—	—	—	—	—	—	0 05 U	0 033 U

TABLE C.2
SOIL DATA SUMMARY VOCs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

Sample Location		SBA-2D	SBA-3A	SBA-3F	SBA-4B	SBA-4C/D	SBA-5A	SBA-5F	SBC-1A/B	SBC-1C/D	TP 5	TP 17
Sample Date		1997	1997	1997	1997	1997	1997	1997	1997	1997	11/11/2008	11/12/2008
Sample Depth (feet bgs)		(2-4)	(0-2)	(10-12)	(2-4)	(4-8)	(0-2)	(10-12)	(0-4)	(4-8)	(6)	(7)
Sample Type												
	Units											
2 Hexanone	mg/kg	—	—	—	—	—	—	—	0.01 U	0.01 U	0.05 U	0.033 U
Iod methane	mg/kg	—	—	—	—	—	—	—	—	—	—	—
Isopropylbenzene	mg/kg	—	—	—	—	—	—	—	—	—	0.05 U	0.033 U
Methyl Tert Butyl Ether	mg/kg	—	—	—	—	—	—	—	—	—	—	—
Methylene chloride	mg/kg	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.017 U
2 Methyl naphthalene	mg/kg	—	—	—	—	—	—	—	—	—	—	—
4-Methyl 2 Pentanone (Methyl Isobutyl Keto)	mg/kg	—	—	—	—	—	—	—	0.01 U	0.01 U	0.05 U	0.033 U
N phthalene	mg/kg	—	—	—	—	—	—	—	—	—	0.05 U	0.033 U
2 Phenylbutan (sec Butylbenzen)	mg/kg	—	—	—	—	—	—	—	—	—	0.013 U	0.033 U
n-Propylbenzen	mg/kg	—	—	—	—	—	—	—	—	—	0.05 U	0.033 U
Styren	mg/kg	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.013 U	0.0082 U
1,1,1,2 Tetrachloroethane	mg/kg	—	—	—	—	—	—	—	—	—	0.013 U	0.0082 U
1,1,2,2 Tetrachloroethane	mg/kg	—	—	—	—	—	—	—	0.005 U	0.005 U	0.013 U	0.0082 U
Tetrachloroethen	mg/kg	0.005 U	0.52 ^{ac}	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.013 U	0.0082 U
Tetrahydrofuran	mg/kg	—	—	—	—	—	—	—	—	—	—	—
Toluene	mg/kg	0.005 U	0.005 U	0.005 U	0.0061	0.005 U	0.009	0.005 U	0.005 U	0.0053	0.013 U	0.0082 U
1,2,3-Trichlorobenzene	mg/kg	—	—	—	—	—	—	—	—	—	0.005 U	0.033 U
1,2,4-Trichlorobenzene	mg/kg	—	—	—	—	—	—	—	—	—	0.05 U	0.033 U
1,1,1 Trichloroethane	mg/kg	—	—	—	—	—	—	—	0.005 U	0.005 U	0.013 U	0.0082 U
1,1,2 Trichloroethane	mg/kg	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.013 U	0.0082 U
Trichloroethen	mg/kg	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.013 U	0.0082 U
Trichlorofluoromethane (CFC 11)	mg/kg	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U	0.013 U	0.0082 U
1,2,3-Trichloropropane	mg/kg	—	—	—	—	—	—	—	—	—	0.013 U	0.0082 U
1,2,4-Trimethylbenzene	mg/kg	—	—	—	—	—	—	—	—	—	0.05 U	0.033 U
1,3,5-Trimethylbenzene	mg/kg	—	—	—	—	—	—	—	—	—	0.05 U	0.033 U
Vinyl acetate	mg/kg	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	—	—
Vinyl chloride	mg/kg	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.013 U	0.0082 U
m,p-Xylene	mg/kg	—	—	—	—	—	—	—	—	—	0.013 U	0.0082 U
o-Xylene	mg/kg	—	—	—	—	—	—	—	—	—	0.013 U	0.0082 U
Xylene (total)	mg/kg	—	—	—	—	—	—	—	0.005 U	0.005 U	—	—

TABLE C.2
SOIL DATA SUMMARY VOCs
FORMER PLAINWELL INC MILL PROPERTY
PLAINWELL MICHIGAN

Sample Location		TP 18	TP-18	TP 19	TP 19	TP 20	TP 20
Sample Date		11/12/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008
Sample Depth (feet bgs)		(8)	(8)	(8)	(8)	(6)	(8.5)
Sample Type			Duplicate		Duplicate		
	Units						
Acetone	mg/kg	0.12	—	0.037 U	—	0.038 U	0.055
Acrylonitrile	mg/kg	—	—	—	—	—	—
Benzene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Bromobenzene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Bromodichloromethane	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Bromoform	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Bromomethane (Methyl Bromide)	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
n-Butylbenzene	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
tert-Butylbenzene	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
Carbon disulfide	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Carbon tetrachloride	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Chlorobenzene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Chlorobromomethane	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Chloroethane	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
2-Chloroethyl vinyl ether	mg/kg	—	—	—	—	—	—
Chloroform (Trichloromethane)	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Chloromethane (Methyl Chloride)	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
2-Chlorotoluene	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
4-Chlorotoluene	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
Cymene (p-Isopropyltoluene)	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
Dibromochloromethane	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Dibromomethane	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
1,2-Dichlorobenzene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,3-Dichlorobenzene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,4-Dichlorobenzene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
trans-1,4-Dichloro-2-butene	mg/kg	—	—	—	—	—	—
Dichlorodifluoromethane (CFC 12)	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,1-Dichloroethane	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,2-Dichloroethane	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,1-Dichloroethene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
cis-1,2-Dichloroethene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
trans-1,2-Dichloroethene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,1-Dichloropropene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,2-Dichloropropene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
cis-1,2-Dichloropropene	mg/kg	—	—	—	—	—	—
trans-1,3-Dichloropropene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,3-Dichloropropene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
cis-1,3-Dichloropropene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
2,2-Dichloropropene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Ethyl Ether	mg/kg	—	—	—	—	—	—
Ethylbenzene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Hexachlorobutadiene	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U

TABLE C.2

SOIL DATA SUMMARY VOCs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL MICHIGAN

Sample Location		TP 18	TP 18	TP 19	TP 19	TP 20	TP 20
Sample Date		11/12/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008
Sample Depth (feet bgs)		(8)	(8)	(8)	(8)	(6)	(8.5)
Sample Type			Duplicate		Duplicate		
	Units						
2 Hexanone	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
1,4-dimethan	mg/kg	—	—	—	—	—	—
Isopropylbenzene	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
Methyl Tert Butyl Ether	mg/kg	—	—	—	—	—	—
Methylene chloride	mg/kg	0.018 U	—	0.019 U	—	0.019 U	0.018 U
2-Methylnaphthalene	mg/kg	—	—	—	—	—	—
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
Naphthalene	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
2-Phenylbutane (sec Butylbenzene)	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
Propylbenzene	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
Styrene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,1,1,2-Tetrachloroethane	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,1,2,2-Tetrachloroethane	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Tetrachloroethene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Tetrahydrofuran	mg/kg	—	—	—	—	—	—
Toluene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,2,3-Trichlorobenzene	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
1,2,4-Trichlorobenzene	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
1,1,1-Trichloroethane	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,1,2-Trichloroethane	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Trichloroethene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Trichlorofluoromethane (CFC 11)	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,2,3-Trichloropropane	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
1,2,4-Trimethylbenzene	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
1,3,5-Trimethylbenzene	mg/kg	0.036 U	—	0.037 U	—	0.038 U	0.035 U
Vinyl acetate	mg/kg	—	—	—	—	—	—
Vinyl chloride	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
m,p-Xylene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
o-Xylene	mg/kg	0.009 U	—	0.0092 U	—	0.0094 U	0.0087 U
Xylene (total)	mg/kg	—	—	—	—	—	—

TABLE C.3

**SOIL DATA SUMMARY SVOCs AND PAHS
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location		CTP-4	DG1	DG2	DG3	DG4	DG5	Sample #1	Sample #2	Sample #3	Sample #4	Sample #5	SB-5	SB-6	SB-7
Sample Date		12/11/2008	1997	1997	1997	1997	1997	06/1999	06/1999	06/1999	06/1999	06/1999	1997	2006	1997
Sample Depth (feet bgs)		(4)	(0-1.5)	(0-1.5)	(0-1.5)	(0-1.5)	(0-1.5)						(2.5-3.5)	(0-1)	(0-0.5)
Sample Type	Units														
Acenaphthene	mg/kg	0.38	0.11 U	0.11 U	11 U	12 U	0.11 U	0.33 U	1 U	1 U	0.33 U	0.33 U	0.4 U	0.012 J	0.033 J
Acenaphthylene	mg/kg	0.17	0.21 U	0.21 U	22 U	24 U	0.21 U	0.33 U	1 U	1 U	0.33 U	0.33 U	0.0049 J	0.14 J	0.16 J
Anthracene	mg/kg	0.96	0.0043	0.0042	0.056 U	0.06 U	0.0043	0.33 U	1 U	1 U	0.33 U	0.33 U	0.015 J	0.094 J	0.2 J
Benzo(a)anthracene	mg/kg	26	0.0095	0.02	3.8	0.47	0.013	0.33 U	1 U	1 U	0.33 U	0.33 U	0.037 J	0.54	0.56 J
Benzo(b)fluoranthene	mg/kg	24	0.013	0.03	4.9	0.58	0.02	0.33 U	1.3	1.3	0.74	0.33 U	0.021 J	0.3 J	0.35 J
Benzo(b)fluoranthene	mg/kg	19	0.013	0.042	3.5	0.48	0.034	0.33 U	1.3	1 U	0.33 U	0.59	0.032 J	0.63 J	0.84
Benzo(g,h,i)perylene	mg/kg	14	0.055	0.059	7.6	6.2	0.06	0.33 U	1 U	1 U	0.33 U	0.33 U	0.02 J	0.29 J	0.23 J
Benzo(k)fluoranthene	mg/kg	2.8	0.0056	0.015	2	0.22	0.0095	0.33 U	1 U	1 U	0.33 U	0.33 U	0.01 J	0.18 J	0.23 J
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.4 U	-	0.73 U
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.34 U	-	0.62 U
Chrysene	mg/kg	28	0.017	0.019	8.1	5.5	0.016	0.33 U	2.2	1 U	0.59	0.33 U	0.031 J	0.31 J	0.42 J
Dibenz(a,h)anthracene	mg/kg	4.9	0.0056	0.0045	0.9	6.4	0.0052	0.33 U	1 U	1 U	0.33 U	0.33 U	0.0057 J	0.075 J	0.071 J
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.4 U	-	0.73 U
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.4 U	-	0.73 U
3,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.4 U	-	0.73 U
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	1 U	-	1.8 U
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	1 U	-	1.8 U
Fluoranthene	mg/kg	4.9	0.053 U	0.053 U	5.6 U	6 U	0.053 U	0.33 U	1 U	1 U	1.1	1.5	0.075 J	0.92 J	1.4
Fluorene	mg/kg	0.9	0.0053 U	0.0053 U	0.56 U	0.6 U	0.0053 U	0.33 U	1 U	1 U	0.33 U	0.33 U	0.0054 J	0.021 J	0.043 J
Indeno(1,2,3-cd)pyrene	mg/kg	6.4	0.021 U	0.021 U	2.2 U	2.4 U	0.021 U	0.33 U	1 U	1 U	0.33 U	0.33 U	0.015 J	0.27 J	0.16 J
1-Methylnaphthalene	mg/kg	5.5	0.053 U	0.053 U	5.6 U	6 U	0.053 U	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	0.053 U	0.053 U	5.6 U	6 U	0.053 U	-	-	-	-	-	0.11 J	0.35 J	0.9
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.0013 J	-	0.73 U
Naphthalene	mg/kg	0.70	0.017	0.026	0.56 U	0.6 U	0.0088	0.33 U	7.6	2.3	0.33 U	0.33 U	0.062 J	0.2 J	0.49 J
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.4 U	-	0.73 U
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	1 U	-	1.8 U
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.024 U	-	0.045 U
Phenanthrene	mg/kg	6.1	0.024	0.038	3.6	0.6 U	0.028	0.33 U	5.6	2.5	0.36	0.57	0.098 J	0.36 J	0.75
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.4 U	-	0.73 U
Pyrene	mg/kg	31	0.021 U	0.035	6	2.4 U	0.027	0.33 U	1.7	1.1	0.67	0.33 U	0.064 J	0.83	1.2
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.4 U	-	0.73 U
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	0.4 U	-	0.73 U

TABLE C.3

**SOIL DATA SUMMARY SVOCs AND PAHS
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL MICHIGAN**

Sample Location		SBA-7	SBA-7	SBA-1A	SBA-1C/D	SBA-2A	SBA-2D	SBA-3A	SBA-3F	SBA-4B	SBA-4C/D	SBA-5A	SBA-5F	SBA-1A/B	SBA-1C/D
Sample Date		1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997
Sample Depth (feet bgs)		(0-0.5)	(7-7.5)	(0-2)	(4-8)	(0-2)	(2-4)	(0-2)	(10-12)	(2-4)	(4-8)	(0-2)	(10-12)	(0-4)	(4-8)
Sample Type	Units	Duplicate													
Acenaphthene	mg/kg	0.081 J	0.08 J	11 U	0.11 U	11 U	0.11 U	2.2 U	0.1 U	11 U	0.1 U	13 U	0.12 U	2.2 U	0.11 U
Acenaphthylene	mg/kg	0.17 J	0.018 J	22 U	0.21 U	22 U	0.21 U	4.4 U	0.21 U	22 U	0.21 U	26 U	0.24 U	4.4 U	0.22 U
Anthracene	mg/kg	0.2 J	0.25 J	0.29	0.00053 U	1.3	0.00053 U	0.056	0.00052 U	0.074	0.0019	0.13	0.0006 U	0.052	0.00082
Benzo()anthracene	mg/kg	0.44 J	0.49 J	0.73	0.00053 U	11	0.00053 U	0.081	0.00052 U	0.17	0.0083	0.52	0.0006 U	0.23	0.0016
Benzo()pyrene	mg/kg	0.34 J	0.24 J	0.9	0.00024 U	4.8	0.00024 U	0.088	0.00024 U	0.27	0.01	0.87	0.00028 U	0.3	0.0024
Benzo(b)fluoranthene	mg/kg	0.78	0.36 J	19	0.0011 U	4.6	0.0011 U	0.11	0.001 U	0.6	0.0093	1.3	0.0012 U	0.24	0.0031
Benzo(g,h)perylene	mg/kg	0.22 J	0.096 J	0.94	0.0021 U	4.3	0.0021 U	0.4	0.0021 U	1.9	0.018	2.6	0.0024 U	0.59	0.0022 U
Benzo(k)fluoranthene	mg/kg	0.23 J	0.16 J	0.61	0.00053 U	2.8	0.00053 U	0.036	0.00052 U	0.21	0.005	0.56	0.0006 U	0.14	0.00055 U
2-Chlorophenol	mg/kg	0.74 U	0.72 U	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.74 U	0.61 U	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	0.46 J	0.43 J	12	0.0021 U	24	0.0021 U	0.098	0.0021 U	0.22 U	0.016	2.5	0.0024 U	0.48	0.0031
Dibenz(a,h)anthracene	mg/kg	0.076 J	0.0086 J	0.98	0.0011 U	4.4	0.0011 U	0.42	0.001 U	0.56	0.0093	0.48	0.0012 U	0.073	0.0036
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.74 U	0.72 U	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.74 U	0.72 U	-	-	-	-	-	-	-	-	-	-	-	-
3,4-Dimethylphenol	mg/kg	0.74 U	0.72 U	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	1.9 U	1.8 U	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	1.9 U	1.8 U	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	1.4	1.4	5.5 U	0.053 U	5.6 U	0.053 U	1.1 U	0.052 U	5.5 U	0.052 U	6.5 U	0.06 U	1.1 U	0.055 U
Fluorene	mg/kg	0.041 J	0.085 J	0.55 U	0.0053 U	0.56 U	0.0053 U	0.11 U	0.0052 U	0.55 U	0.0052 U	0.65 U	0.006 U	0.11 U	0.0055 U
Indene (1,2,3-cd)pyrene	mg/kg	0.17 J	0.094 J	2.2 U	0.021 U	2.2 U	0.021 U	0.44 U	0.021 U	2.2 U	0.021 U	2.6 U	0.024 U	0.44 U	0.022 U
1-Methylnaphthalene	mg/kg	-	-	5.5 U	0.053 U	5.6 U	0.053 U	1.1 U	0.052 U	5.5 U	0.052 U	6.5 U	0.06 U	1.1 U	0.055 U
2-Methylnaphthalene	mg/kg	0.72 J	0.071 J	5.5 U	0.053 U	7.4	0.053 U	1.1 U	0.052 U	5.5 U	0.052 U	6.5 U	0.06 U	1.1 U	0.055 U
2-Methylphenol	mg/kg	0.74 U	0.72 U	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.36 J	0.057 J	0.56 U	0.0053 U	0.56 U	0.0053 U	0.32	0.0052 U	0.6	0.0052 U	0.72	0.006 U	0.11 U	0.005 U
2-Nitrophenol	mg/kg	0.74 U	0.72 U	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	1.9 U	1.8 U	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	0.045 U	0.044 U	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.7 J	1	2.3	0.0053 U	15	0.0053 U	0.5	0.0052 U	0.92	0.007	1.5	0.006 U	0.37	0.0095
Phenol	mg/kg	0.74 U	0.72 U	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	15	13	2.2 U	0.021 U	16	0.021 U	0.44 U	0.021 U	2.2 U	0.021 U	2.6 U	0.024 U	0.5	0.022 U
2,4,5-Trichlorophenol	mg/kg	0.74 U	0.72 U	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.74 U	0.72 U	-	-	-	-	-	-	-	-	-	-	-	-

TABLE C.3

**SOIL DATA SUMMARY SVOCs AND PAHS
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location		SCSB-1	SCSB-2A	SCSB-3	SCSB-4	SCSB-5	TP-5	TP-17	TP-18	TP-18	TP-19	TP-19	TP-20	TP-20
Sample Date		1997	1997	1997	1997	1997	11/11/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008
Sample Depth (feet bgs)		(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(6)	(7)	(8)	(8)	(8)	(8)	(6)	(8.5)
Sample Type	Units									Duplicate		Duplicate		
Acenaphthene	mg/kg	0.11 U	0.12 U	0.11 U	0.11 U	0.11 U	0.12	0.28	0.18	—	0.06	0.06	0.02	0.39
Acenaphthylene	mg/kg	0.21 U	0.24 U	0.22 U	0.21 U	0.22 U	0.32	0.19	0.42	—	0.04	0.05	0.16	0.04
Anthracene	mg/kg	0.00053 U	0.0091	0.0011	0.00053 U	0.00056 U	0.45	0.29	0.77	—	0.22	0.24	0.09	0.34
Benzo(a)anthracene	mg/kg	0.00053 U	0.028	0.0063	0.00053 U	0.00056 U	2.30	1.40	3.20	—	0.56	0.74	0.62	0.47
Benzo(a)pyrene	mg/kg	0.00024 U	0.033	0.009	0.00024 U	0.00026 U	2.40	1.40	3.10	—	0.55	0.68	0.52	0.36
Benzo(b)fluoranthene	mg/kg	0.0011 U	0.036	0.0097	0.0011 U	0.0011 U	3.20	1.80	4.30	—	0.68	0.72	1.90	0.52
Benzo(g,h,i)perylene	mg/kg	0.0021 U	0.08	0.035	0.0021 U	0.0022 U	1.30	0.82	1.60	—	0.33	0.33	0.42	0.21
Benzo(k)fluoranthene	mg/kg	0.00053 U	0.011	0.0036	0.00053 U	0.00056 U	1.20	0.75	1.30	—	0.21	0.31	0.47	0.22
2-Chlorophenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
4-Chloro-3-methylphenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
Chrysene	mg/kg	0.0021 U	0.099	0.038	0.0021 U	0.0022 U	2.20	1.50	3.80	—	0.48	0.58	1.40	0.53
Dibenz(a,h)anthracene	mg/kg	0.0011 U	0.028	0.0011 U	0.0011 U	0.0011 U	0.44	0.21	0.49	—	0.08	0.08	0.14	0.06
Dibenzofuran	mg/kg	—	—	—	—	—	0.11	0.10	0.18	—	0.07	0.06	0.03	0.43
2,4-Dichlorophenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
2,4-Dimethylphenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
3,4-Dimethylphenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
4,6-Dinitro-2-methylphenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
2,4-Dinitrophenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
Fluoranthene	mg/kg	0.053 U	0.21	0.054 U	0.053 U	0.056 U	3.40	3.40	7.70	—	0.96	1.20	3.00	1.20
Fluorene	mg/kg	0.0053 U	0.0059 U	0.0054 U	0.0053 U	0.0056 U	0.20	0.14	0.37	—	0.15	0.15	0.04	0.57
Indeno(1,2,3-cd)pyrene	mg/kg	0.021 U	0.024 U	0.022 U	0.021 U	0.022 U	1.30	1.00	2.10	—	0.35	0.37	0.59	0.23
1-Methylnaphthalene	mg/kg	0.053 U	0.059 U	0.054 U	0.053 U	0.056 U	—	—	—	—	—	—	—	—
2-Methylnaphthalene	mg/kg	0.053 U	0.099	0.054 U	0.053 U	0.056 U	0.17	0.07	0.12	—	0.03	0.03	0.02	0.21
2-Methylphenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
Naphthalene	mg/kg	0.0053 U	0.044	0.0054 U	0.0053 U	0.0056 U	0.19	0.10	0.14	—	0.07	0.04	0.04	0.48
2-Nitrophenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
4-Nitrophenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
Pentachlorophenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
Phenanthrene	mg/kg	0.0053 U	0.079	0.011	0.0053 U	0.0056 U	1.40	1.40	3.20	—	0.35	0.38	0.85	1.20
Phenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
Pyrene	mg/kg	0.021 U	0.052	0.022 U	0.021 U	0.022 U	2.80	2.40	5.80	—	0.89	0.98	0.76	0.85
2,4,5-Trichlorophenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
2,4,6-Trichlorophenol	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE C4

**SOIL DATA SUMMARY PCBs AND PETROLEUM PRODUCTS
FORMER PLAINWELL INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location	93374	CTP-4	SB 1	SB 2	SB 2	SB 2	SB-3	SB-3	SB-4	SB-6	SPD-1	SPI 1
Sample Date	1/1/1999	12/11/2008	2006	2006	2006	2006	2006	2006	2006	2006	1996	1996
Sample Depth (feet bgs)	-	(4)	(12.5-13)	(9-10)	(12-13)	(12-13)	(2-2.5)	(4-5)	(9-10)	(0-1)		(3-3.5)
Sample Type						Duplicate						
	Units											
Petroleum Products												
TPH extr ctabl (DRO)	mg/kg	-	14000 D	-	-	-	-	-	-	-	-	-
TPH N n-P lar Material SGT HEM	mg/kg	0.264	-	-	-	-	-	-	-	-	-	-
TPH purgeabl (GRO)	mg/kg	-	93	-	-	-	-	-	-	-	-	-
TPH (C10-C28) DRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-
TPH (C6-C10) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-
PCBs												
Aroclor 1016 (PCB-1016)	mg/kg	-	11 U	-	-	-	-	-	-	-	-	-
Aroclor 1221 (PCB-1221)	mg/kg	-	11 U	-	-	-	-	-	-	-	-	-
Aroclor 1232 (PCB-1232)	mg/kg	-	11 U	-	-	-	-	-	-	-	0.47	-
Aroclor 1242 (PCB-1242)	mg/kg	-	11 U	-	-	-	-	-	-	-	-	-
Aroclor 1248 (PCB-1248)	mg/kg	-	11 U	-	-	-	-	-	-	-	-	-
Aroclor 1254 (PCB-1254)	mg/kg	-	11 U	0.38 U	0.56 U	0.39 U	0.38 U	0.27 J ^r	0.19 J ^r	0.62 U	0.36 U	0.82
Aroclor 1260 (PCB-1260)	mg/kg	-	11 U	-	-	-	-	-	-	-	-	0.61
Total PCB	mg/kg	-	11 U	-	-	-	-	-	-	-	-	1.40
SPLP PCBs												
Aroclor 1016 (PCB-1016)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1221 (PCB-1221)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1232 (PCB-1232)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1242 (PCB-1242)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1248 (PCB-1248)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1254 (PCB-1254)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1260 (PCB-1260)	mg/L	-	-	-	-	-	-	-	-	-	-	-

TABLE C 4

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**SOIL DATA SUMMARY PCBs AND PETROLEUM PRODUCTS
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL MICHIGAN**

Sample Location		SPI 1	SPL-1	SPL-1	SPL 1	SPL 1	SPL 2	SPL 2	SPL-2	SPL-4	SPL-4	SPL-4
Sample Date		1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996
Sample Depth (feet bgs)			(0-0.5)	(4-6)	(6-8)		(0-0.5)	(8-10)	(10-12)	(0-0.5)	(12-14)	(16-18)
Sample Type												
	Limits											
Petroleum Products												
TPH extractable (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
TPH Non Polar Material SGT HEM	mg/kg	-	-	-	-	-	-	-	-	-	-	-
TPH purge bl (GRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
TPH (C10-C28) DRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-
TPH (C6-C10) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-
PCBs												
Aroclor-1016 (PCB-1016)	mg/kg	0.12	-	-	-	0.029	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1232 (PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1242 (PCB-1242)	mg/kg	-	-	-	-	0.094	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1254 (PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1260 (PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	0.051 U	0.27 J	0.12 J	-	0.04 J	0.2	0.025 J	0.051 U	1.5 J	0.048 J
SPLP PCBs												
Aroclor 1016 (PCB-1016)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Arocl 1221 (PCB-1221)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1232 (PCB-1232)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1242 (PCB-1242)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1254 (PCB-1254)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1260 (PCB-1260)	mg/L	-	-	-	-	-	-	-	-	-	-	-

TABLE C 4

**SOIL DATA SUMMARY PCBs AND PETROLEUM PRODUCTS
FORMER PLAINWELL INC MILL PROPERTY
PLAINWELL MICHIGAN**

Sample Location		SPL-6	SPL-6	SPL-6	SPL-11	SPL 11	SPL-11	SPL 13	SPL 13	SPL-13	SPL-13	SPL-13
Sample Date		1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996
Sample Depth (feet bgs)		(0-0.5)	(2-4)		(0-0.5)	(10-10.5)	(10.5-12)	(0-0.5)	(0.5-1)	(14-16)	(16-18)	
Sample Type												
	Units											
Petroleum Products												
TPH tractabl (DRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
TPH Non P lar Material SGT HEM	mg/kg	-	-	-	-	-	-	-	-	-	-	-
TPH purge bl (GRO)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
TPH (C10-C28) DRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-
TPH (C6-C10) GRO	mg/kg	-	-	-	-	-	-	-	-	-	-	-
PCBs												
Arocl 1016 (PCB-1016)	mg/kg	-	-	0 052	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	mg/kg	-	-	-	-	-	-	-	-	-	-	0 051
Arocl 1232 (PCB-1232)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1248 (PCB-1248)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	mg/kg	-	-	-	-	-	-	-	-	-	-	0 051
Arocl r-1260 (PCB-1260)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
T tal PCB	mg/kg	0.27	0 051 U	-	0 038 J	1 6 J	0 051 J	0 051 U	0 051 U	0 11	0 091	0 091
SPLP PCBs												
Arocl r-1016 (PCB-1016)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Arocl 1221 (PCB-1221)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1232 (PCB-1232)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Arocl 1242 (PCB-1242)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Arocl r-1248 (PCB-1248)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Arocl 1254 (PCB-1254)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1260 (PCB-1260)	mg/L	-	-	-	-	-	-	-	-	-	-	-

TABLE C 4

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**SOIL DATA SUMMARY PCBs AND PETROLEUM PRODUCTS
FORMER PLAINWELL INC MILL PROPERTY
PLAINWELL MICHIGAN**

Sample Location		TP 1	TP 1	TP 2	TP 2	TP-3	TP 3	TP-4	TP-4	TP 5	TP 5	TP 5
Sample Date		11/10/2008	1/1/2009	11/10/2008	1/1/2009	11/10/2008	1/1/2009	11/11/2008	1/1/2009	11/11/2008	11/11/2008	11/11/2008
Sample Depth (feet bgs)		(5.5)		(6)		(6.5)		(5)		(5.5)	(6)	
Sample Type												
	Units											
Petroleum Products												
TPH extractabl (DRO)	mg/kg	170 D	—	130 D	—	400 D	—	1100 D	—	940 D	900 D	—
TPH Non-Polar Matenal SGT HEM	mg/kg	—	—	—	—	—	—	—	—	—	—	—
TPH purgeable (GRO)	mg/kg	2.3 U	—	2.5 U	—	2.2 U	—	3.1 U	—	2.6 U	5.2 U	—
TPH (C10-C28) DRO	mg/kg	—	—	—	—	—	—	—	—	—	—	—
TPH (C6-C10) GRO	mg/kg	—	—	—	—	—	—	—	—	—	—	—
PCBs												
Aroclor 1016 (PCB-1016)	mg/kg	0.01 U	—	0.01 U	—	0.008 U	—	0.012 U	—	0.01 U	0.023 U	—
Aroclor-1221 (PCB-1221)	mg/kg	0.01 U	—	0.01 U	—	0.008 U	—	0.012 U	—	0.01 U	0.023 U	—
Aroclor 1232 (PCB-1232)	mg/kg	0.01 U	—	0.01 U	—	0.008 U	—	0.012 U	—	0.01 U	0.023 U	—
Aroclor 1242 (PCB-1242)	mg/kg	0.01 U	—	0.01 U	—	0.008 U	—	0.012 U	—	0.01 U	0.023 U	—
Aroclor 1248 (PCB-1248)	mg/kg	0.01 U	—	0.01 U	—	0.008 U	—	0.012 U	—	0.01 U	0.023 U	—
Aroclor-1254 (PCB-1254)	mg/kg	0.014 P	—	0.025	—	0.008 U	—	0.15	—	0.93	0.062	—
Aroclor 1260 (PCB-1260)	mg/kg	0.01 U	—	0.01 U	—	0.008 U	—	0.012 U	—	0.17	0.05 P	—
Total PCB	mg/kg	0.014 P	0.35	0.025	0.28	0.008 U	0.04	0.15	0.05	1.1	0.112	0.01
SPLP PCB												
Aroclor 1016 (PCB-1016)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Aroclor-1221 (PCB-1221)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Aroclor 1232 (PCB-1232)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Aroclor-1242 (PCB-1242)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Aroclor 1248 (PCB-1248)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Aroclor-1254 (PCB-1254)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Aroclor-1260 (PCB-1260)	mg/L	—	—	—	—	—	—	—	—	—	—	—

TABLE C 4

**SOIL DATA SUMMARY PCBs AND PETROLEUM PRODUCTS
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL MICHIGAN**

Sample Locatio		TP-6	TP-6	TP 7	TP-8	TP 9	TP 10	TP 11	TP 12	TP 12	TP 13	TP 14
Sample Date		11/11/2008	1/1/2009	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008
Sample Depth (feet bgs)		(6)		(5.5)	(5)	(6)	(5.5)	(6)	(6-7)	(6-7)	(6)	(5.5)
Sample Type										Duplicate		
	Units											
Petroleum Products												
TPH extractabl (DRO)	mg/kg	1700 D	—	690 D	840 D	140 D	900 D	130	76	91 D	37	160 D
TPH Non Polar Material SGT HEM	mg/kg	—	—	—	—	—	—	—	—	—	—	—
TPH purgeable (GRO)	mg/kg	2.5 U	—	3.3 U	3 U	3 U	2.6 U	2.8 U	2.2 U	2.1 U	2.2 U	3 U
TPH (C10-C28) DRO	mg/kg	—	—	—	—	—	—	—	—	—	—	—
TPH (C6-C10) GRO	mg/kg	—	—	—	—	—	—	—	—	—	—	—
PCBs												
Aroclor 1016 (PCB-1016)	mg/kg	0 011 U	—	0 013 U	0 15 U	0 013 U	0 012 U	0 012 U	0 0096 U	0 0098 U	0 0092 U	0 04
Aroclor 1221 (PCB-1221)	mg/kg	0 011 U	—	0 013 U	0 15 U	0 013 U	0 012 U	0 012 U	0 0096 U	0 0098 U	0 0092 U	0 014 U
Aroclor 1232 (PCB-1232)	mg/kg	0 011 U	—	0 013 U	0 15 U	0 013 U	0 012 U	0 012 U	0 0096 U	0 0098 U	0 0092 U	0 014 U
Aroclor 1242 (PCB-1242)	mg/kg	0 011 U	—	0 013 U	0 15 U	0 013 U	0 012 U	0 012 U	0 0096 U	0 0098 U	0 0092 U	0 065
Aroclor-1248 (PCB-1248)	mg/kg	0 011 U	—	0 013 U	0 15 U	0 013 U	0 012 U	0 012 U	0 0096 U	0 0098 U	0 0092 U	0 014 U
Arocl 1254 (PCB-1254)	mg/kg	0 011 U	—	0.5	1.4 D	0 046	0 032	0 18	0 45 D	0 68 D	0 11	0 025 P
Arocl 1260 (PCB-1260)	mg/kg	0 011 U	—	0 013 U	0 15 U	0 013 U	0 012 U	0 04 P	0 1	0 14	0 019	0 014 U
T tal PCB	mg/kg	0 011 U	0 08	0 5	1.4 D	0 046	0 032	0 22 P	0 10	0 14	0 129	0 065
SPLP PCB												
Aroclor-1016 (PCB-1016)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Aroclor 1221 (PCB-1221)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Aroclor 1232 (PCB-1232)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Aroclor 1242 (PCB-1242)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Aroclor 1248 (PCB-1248)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Aroclor 1254 (PCB-1254)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Aroclor 1260 (PCB-1260)	mg/L	—	—	—	—	—	—	—	—	—	—	—

TABLE C.4

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**SOIL DATA SUMMARY PCBs AND PETROLEUM PRODUCTS
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL MICHIGAN**

Sample Location		TP 15	TP 16	TP 17	TP 18	TP 18	TP 19	TP 20	TP 20	TW 3	TW 3 DUP	TW-6
Sample Date		11/10/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008	9/6/2006	9/6/2006	9/6/2006
Sample Depth (feet bgs)		(6-7)	(5.5)	(7)	(8)	(8)	(8)	(6)	(8.5)	--	--	--
Sample Type						Duplicate					Duplicate	
Units												
Petroleum Products												
TPH extractable (DRO)	mg/kg	130 D	170 D	480 D	3200 D	3300 D	140 D	210 D	740 D	--	--	--
TPH Non Petroleum Material SGT HEM	mg/kg	--	--	--	--	--	--	--	--	--	--	--
TPH purgeable (GRO)	mg/kg	2.6 U	2.8 U	8.8	9.7	13	3 U	3.2 U	3	--	--	--
TPH (C10-C28) DRO	mg/kg	--	--	--	--	--	--	--	--	--	--	--
TPH (C6-C10) GRO	mg/kg	--	--	--	--	--	--	--	--	--	--	--
PCBs												
Aroclor 1016 (PCB-1016)	mg/kg	0.012 U	0.014 U	0.0067 U	0.011 U	0.012 U	0.014 U	0.014 U	0.012 U	--	--	--
Aroclor 1221 (PCB-1221)	mg/kg	0.012 U	0.014 U	0.0067 U	0.011 U	0.012 U	0.014 U	0.014 U	0.012 U	--	--	--
Aroclor 1232 (PCB-1232)	mg/kg	0.012 U	0.014 U	0.0067 U	0.011 U	0.012 U	0.014 U	0.014 U	0.012 U	--	--	--
Aroclor 1242 (PCB-1242)	mg/kg	0.012 U	0.014 U	0.0067 U	0.011 U	0.012 U	0.014 U	0.014 U	0.012 U	--	--	--
Aroclor 1248 (PCB-1248)	mg/kg	0.012 U	0.014 U	0.0067 U	0.011 U	0.012 U	0.014 U	0.014 U	0.012 U	--	--	--
Aroclor 1254 (PCB-1254)	mg/kg	0.012 U	0.27	0.0067 U	0.011 U	0.012 U	0.014 U	0.014 U	0.012 U	--	--	--
Aroclor 1260 (PCB-1260)	mg/kg	0.012 U	0.014 U	0.0067 U	0.011 U	0.012 U	0.014 U	0.014 U	0.012 U	--	--	--
Total PCB	mg/kg	0.012 U	0.27	0.0067 U	0.011 U	0.012 U	0.014 U	0.014 U	0.012 U	--	--	--
SPLP PCBs												
Aroclor 1016 (PCB-1016)	mg/L	--	--	--	--	--	--	--	--	0.0002 U	0.0002 U	0.0002 U
Aroclor 1221 (PCB-1221)	mg/L	--	--	--	--	--	--	--	--	0.0002 U	0.0002 U	--
Aroclor 1232 (PCB-1232)	mg/L	--	--	--	--	--	--	--	--	0.0002 U	0.0002 U	--
Aroclor-1242 (PCB-1242)	mg/L	--	--	--	--	--	--	--	--	0.0002 U	0.0002 U	--
Aroclor 1248 (PCB-1248)	mg/L	--	--	--	--	--	--	--	--	0.0002 U	0.0002 U	--
Aroclor 1254 (PCB-1254)	mg/L	--	--	--	--	--	--	--	--	0.0002 U	0.0002 U	--
Aroclor 1260 (PCB-1260)	mg/L	--	--	--	--	--	--	--	--	0.0002 U	0.0002 U	--

TABLE C.5

**SOIL DATA SUMMARY METALS
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location		BK1	BK2	BK3	BK4	BK5	CTP-4	DG1	DG2	DG3	DG4	DG5	SB-1	SB-2
Sample Date		1997	1997	1997	1997	1997	12/11/2008	1997	1997	1997	1997	1997	2006	2006
Sample Depth (feet bgs)		(1.5-2)	(1.5-2)	(1.5-2)	(1.5-2)	(2.5-3)	(4)	(0-1.5)	(0-1.5)	(0-1.5)	(0-1.5)	(0-1.5)	(12.5-13)	(9-10)
Sample Type														
	Units													
Metals														
Arsenic	mg/kg	2.7 U	2.7 U	2.7 U	2.9	11 ^{MC}	14.8 ^{MC}	3.6	4.4	6.8 ^{MC}	16 ^{MC}	2.7 U	8.5 ^{MC}	5.8
Barium	mg/kg	—	—	—	—	—	49	—	—	—	—	—	—	—
Cadmium	mg/kg	1.3	0.95	1.1	1.1	1.8	0.5 U	0.99	1.1	1.9	3.9	1	0.073	0.14
Chromium Total	mg/kg	12	5.1	6.1	5.4	15	12	5.9	5.5	11	28	6.3	20	18
Copper	mg/kg	2.7 U	2.7 U	4.8	6.4	19	—	3.8	2.6 U	120	220	5	13	38
Lead	mg/kg	3.1	7.8	31	32	53	20	7.4	32	140	990 ^{MC}	11	10	15
Mercury	mg/kg	0.043 U	0.043 U	0.099	0.044 U	0.34	0.1 U	0.043 U	0.049	5.6 ^{MC}	1.1	0.043 U	0.020 J	0.075
Selenium	mg/kg	0.53 U	0.53 U	0.54 U	0.55 U	0.53 U	1.5 ^d	0.53 U	0.53 U	0.56 U	0.6 U	0.53 U	0.15	0.49
Silver	mg/kg	—	—	—	—	—	1.0 U	—	—	—	—	—	—	—
Zinc	mg/kg	27 U	27 U	29	36	74	—	27 U	26 U	230	450	27 U	30	140

TABLE C.5

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**SOIL DATA SUMMARY: METALS
FORMER PLAINWELL, INC. MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location	SB-2	SB-2	SB-3	SB-3	SB-4	SB-5	SB-6	SB-7	SB 7	SB-7	SBA 1A	SBA 1C/D	SBA-2A	
Sample Date	2006	2006	2006	2006	2006	2006	2006	2006	2006	2006	1997	1997	1997	
Sample Depth (feet bgs)	(12-13)	(12-13)	(2-2.5)	(4-5)	(9-10)	(2.5-3.5)	(0-1)	(0-0.5)	(0-0.5)	(7-7.5)	(0-2)	(4-8)	(0-2)	
Sample Type	Duplicate		Duplicate		Duplicate		Duplicate		Duplicate		Duplicate		Duplicate	
Units														
Metals														
Arsenic	mg/kg	0.74	0.75	6.3 nd	2.6	4	12 nd	—	5.8	—	28 nd	—	—	—
Barium	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
Cadmium	mg/kg	0.019 J	0.018 J	0.14	0.16	0.17	0.42	—	0.27	—	1.4	—	—	—
Chromium Total	mg/kg	4.7	3.8	19 nd	15	12	14	—	7.6	—	30	—	—	—
Copper	mg/kg	3.2	2.8	23	36	32	240	—	22	—	250 nd	—	—	—
Lead	mg/kg	2	1.9	59	15	8.7	160	—	41	—	180	23	2.4	18
Mercury	mg/kg	0.050 U	0.050 U	0.22	0.16	0.044 J	0.27 nd	—	0.28	—	6.3 nd	—	—	—
Selenium	mg/kg	0.1	0.1	0.3	0.33	1.1	1.4	—	0.5	—	0.38	—	—	—
Silver	mg/kg	—	—	—	—	—	—	—	—	—	—	—	—	—
Zinc	mg/kg	15	15	84	120	66	210	—	64	—	620	—	—	—

TABLE C.5

SOIL DATA SUMMARY METALS
FORMER PLAINWELL INC MILL PROPERTY
PLAINWELL MICHIGAN

Sample Location		SBA-2D	SBA-3A	SBA-3F	SBA-4B	SBA-4C/D	SBA-5A	SBA-5F	SBG-1A/B	SBG-1C/D	SCSB-1	SCSB-2A	SCSB-3	SCSB-4
Sample Date		1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997
Sample Depth (feet bgs)		(2-4)	(0-2)	(10-12)	(2-4)	(4-8)	(0-2)	(10-12)	(0-4)	(4-8)	(0-2)	(0-2)	(0-2)	(0-2)
Sample Type														
	Units													
Metals														
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	2.6 U	6.5 ^{nc}	2.7 U	2.6 U
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	1.2	1.2	1.1	1
Chromium Total	mg/kg	-	-	-	-	-	-	-	-	-	5.5	9.2	4.7	5.6
Copper	mg/kg	-	-	-	-	-	-	-	-	-	2 U	10	5.6	2.6 U
Lead	mg/kg	2.3	2.3	3	20	1.9	51	2.1	200	4.1	2.8	62	9.6	2
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	0.042 U	0.1	0.043 U	0.042 U
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	0.53 U	0.59 U	0.54 U	0.53 U
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	26 U	68	27 U	26 U

TABLE C.5

**SOIL DATA SUMMARY: METALS
FORMER PLAINWELL, INC. MILL PROPERTY
PLAINWELL, MICHIGAN**

<i>Sample Location</i>		SCSB-5	TP 5	TP 17	TP 18	TP 19	TP 20	TP 20
<i>Sample Date</i>		1997	11/11/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008	11/12/2008
<i>Sample Depth (feet bgs)</i>		(0-2)	(6)	(7)	(8)	(8)	(6)	(8.5)
<i>Sample Type</i>								
		Units						
<i>Metals</i>								
Arsenic	mg/kg	2.8 U	5.0	10.1 ^{nc}	9.7 ^{nc}	8.0 ^{nc}	6.2 ^{nc}	11.7 ^{nc}
Barium	mg/kg	—	233	144	200	46	118	135
Cadmium	mg/kg	1.1	2.4	0.6	6.5 ^{nc}	0.5 U	0.5	1.9
Chromium Total	mg/kg	4.3	75 ^{nc}	16	37 ^{nc}	8	5	16
Copper	mg/kg	2.8 U	—	—	—	—	—	—
Lead	mg/kg	2.1	390	120	290	50	90	140
Mercury	mg/kg	0.045 U	1.2	0.5	0.9 ^a	0.9 ^a	0.6	3.3 ^{nc}
Selenium	mg/kg	0.56 U	1.9	0.6	0.9 ^a	0.8	0.5 U	2.4
Silver	mg/kg	—	1	1 U	1 U	1 U	1 U	1 U
Zinc	mg/kg	28 U	—	—	—	—	—	—

APPENDIX D

GROUNDWATER ANALYTICAL DATA

- D 1 GROUNDWATER SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
- D 2 GROUNDWATER DATA SUMMARY - VOC
- D 3 GROUNDWATER DATA SUMMARY – SVOC AND PAH
- D 4 GROUNDWATER DATA SUMMARY - PCBS
- D 5 GROUNDWATER DATA SUMMARY – METALS



TABLE D 1

**GROUNDWATER SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC. MILL PROPERTY
PLAINWELL, MICHIGAN**

Michigan Act 451, Part 201 Generic Cleanup Criteria																
Volatile Organic Compounds	Residential I & Commercial I Drinking Water		Industrial & Commercial II, III, IV Drinking Water		Groundwater Surface Interface		Residential & Commercial I Groundwater		Industrial & Commercial II, III & IV Groundwater		Groundwater Contact		Number of Exceedances of Part 201 Groundwater Generic Cleanup Criteria			
	Units	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
Acetone	mg/L	0.73	2.1	1.7	1000000	1000000	31000	32	1	0.005	0.005	0	0	0	0	0
Acrylonitrile	mg/L	0.0026	0.011	0.0049	34	190	14	4	0	—	—	0	0	0	0	0
Benzene	mg/L	0.005	0.005	0.2	5.6	35	11	35	0	—	—	0	0	0	0	0
Bromobenzene	mg/L	0.018	0.05		180	390	12	21	0	—	—	0	0	NA	0	0
Bromodichloromethane	mg/L	0.08	0.08	ID	4.8	37	14	35	0	—	—	0	0	NA	0	0
Bromoform	mg/L	0.08	0.08	ID	470	3100	140	32	0	—	—	0	0	NA	0	0
Bromomethane (Methyl Bromide)	mg/L	0.01	0.029	0.035	4	9	70	32	0	—	—	0	0	0	0	0
2-Butanone (Methyl Ethyl Ketone)	mg/L	13	38	2.2	240000	240000	240000	28	0	—	—	0	0	0	0	0
Carbon disulfide	mg/L	0.8	2.3	ID	250	550	1200	32	0	—	—	0	0	NA	0	0
Carbo tetrachloride	mg/L	0.005	0.005	0.045	0.37	2.4	4.6	35	0	—	—	0	0	0	0	0
Chlorobenzene	mg/L	0.1	0.1	0.047	210	470	86	35	0	—	—	0	0	0	0	0
Chlorobromomethane	mg/L	NC	NC	NC	NC	NC	NC	18	0	—	—	NA	NA	NA	NA	NA
Chloroethane	mg/L	0.43	1.7	ID	5700	5700	440	35	0	—	—	0	0	NA	0	0
2-Chloroethyl vinyl ether	mg/L	ID	ID	NC	ID	ID	ID	14	0	—	—	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	mg/L	0.08	0.08	0.17	28	180	150	35	0	—	—	0	0	0	0	0
Chloromethane (Methyl Chloride)	mg/L	0.26	1.1	ID	8.6	45	490	35	1	0.0006	0.0006	0	0	NA	0	0
2-Chlorotoluene	mg/L	0.15	0.42	ID	220	370	44	17	0	—	—	0	0	NA	0	0
4-Chlorotoluene	mg/L	NC	NC	NC	NC	NC	NC	17	0	—	—	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.62	93	210	200	35	0	—	—	0	0	0	0	0
cis-1,2-Dichloropropene	mg/L	NC	NC	NC	NC	NC	NC	18	0	—	—	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/L	NC	NC	NC	NC	NC	NC	14	0	—	—	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	mg/L	NC	NC	NC	NC	NC	NC	17	0	—	—	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	NC	1.2	1.2	0.39	17	0	—	—	0	0	NA	0	0
Dibromochloromethane	mg/L	0.08	0.08	ID	14	110	18	31	0	—	—	0	0	NA	0	0
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	0.00005	0.00005	0.0002	2.4	15	0.025	17	0	—	—	0	0	0	0	0
Dibromomethane	mg/L	0.08	0.23	NC	ID	ID	530	14	0	—	—	0	0	NA	NA	0
1,2-Dichlorobenzene	mg/L	0.6	0.6	0.016	160	160	160	17	0	—	—	0	0	0	0	0
1,3-Dichlorobenzene	mg/L	0.0066	0.019	0.038	ID	ID	2	17	0	—	—	0	0	0	NA	0
1,4-Dichlorobenzene	mg/L	0.075	0.075	0.013	16	74	6.4	17	0	—	—	0	0	0	0	0
Dichlorodifluoromethane (CFC 12)	mg/L	1.7	4.8	ID	220	300	300	17	0	—	—	0	0	NA	0	0
1,1-Dichloroethane	mg/L	0.88	2.5	0.74	1000	2300	2400	35	0	—	—	0	0	0	0	0
1,2-Dichloroethane	mg/L	0.005	0.005	0.36	9.6	59	19	35	0	—	—	0	0	0	0	0
1,1-Dichloroethene	mg/L	0.007	0.007	0.065	0.2	1.3	11	35	0	—	—	0	0	0	0	0
1,2-Dichloropropane	mg/L	0.005	0.005	0.29	16	36	16	35	0	—	—	0	0	0	0	0
1,3-Dichloropropane	mg/L	NC	NC	NC	NC	NC	NC	17	0	—	—	NA	NA	NA	NA	NA
2,2-Dichloropropane	mg/L	NC	NC	NC	NC	NC	NC	17	0	—	—	NA	NA	NA	NA	NA
1,1-Dichloropropene	mg/L	NC	NC	NC	NC	NC	NC	14	0	—	—	NA	NA	NA	NA	NA
Diisopropyl ether	mg/L	0.03	0.086	ID	8	8	8	3	0	—	—	0	0	NA	0	0
Ethylbenzene	mg/L	0.074	0.074	0.018	110	170	170	35	0	—	—	0	0	0	0	0
Hexachlorobutadiene	mg/L	0.015	0.042	0.00005	1.6	3.2	0.4	17	0	—	—	0	0	0	0	0
2-Hexanone	mg/L	1	2.9	NC	4200	8700	5200	32	0	—	—	0	0	NA	0	0
Isopropylbenzene	mg/L	0.8	2.3	ID	56	56	56	17	0	—	—	0	0	NA	0	0
m,p-Xylene	mg/L	NC	NC	NC	NC	NC	NC	14	0	—	—	NA	NA	NA	NA	NA

**GROUNDWATER SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC. MILL PROPERTY
PLAINWELL, MICHIGAN**

Michigan Act 451, Part 201 General Cleanup Criteria ^(a)																		
Contaminant	Residential & Commercial I		Industrial & Commercial II, III, IV		Groundwater Surface Water Interface	Residential & Commercial I		Industrial & Commercial II, III & IV		Groundwater Contact	Number of Samples	No. of Detects	Min. Value Detect	Max. Value Detect	Number of Exceedances of Part 201 Groundwater Generic Cleanup Criteria			
	Drinking Water	Drinking Water	Drinking Water	Drinking Water	Drinking Water	Drinking Water	Drinking Water	Drinking Water	Drinking Water	b					c	d	e	
	Units	Units	Units	Units	Units	Units	Units	Units	Units	f					g	h	i	
Volatile Organic Compounds																		
Methyl Tert Butyl Ether	mg/L	0.04	0.04	0.73	47000	47000	610	17	0	—	—	0	0	0	0	0		
4-Methyl 2-Pentanone (Methyl Isobutyl Ketone)	mg/L	1.8	5.2	ID	20000	20000	13000	32	0	—	—	0	0	NA	0	0		
Methylene chloride	mg/L	0.005	0.005	0.94	220	1400	220	35	0	—	—	0	0	0	0	0		
N-Phthalene	mg/L	0.52	1.5	0.013	31	31	31	17	0	—	—	0	0	0	0	0		
n-Butylbenzene	mg/L	0.08	0.23	ID	ID	ID	5.9	21	0	—	—	0	0	NA	NA	0		
n-Propylbenzene	mg/L	0.08	0.23	ID	ID	ID	15	17	0	—	—	0	0	NA	NA	0		
o-Xylene	mg/L	0.28	0.28	0.035	190	190	190	14	0	—	—	0	0	0	0	0		
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.08	0.23	ID	ID	ID	4.4	21	0	—	—	0	0	NA	NA	0		
Styrene	mg/L	0.1	0.1	0.08	170	310	9.7	32	0	—	—	0	0	0	0	0		
tert-Butylbenzene	mg/L	0.08	0.23	NC	ID	ID	8.9	21	0	—	—	0	0	NA	NA	0		
1,1,1,2-Tetrachloroethane	mg/L	0.077	0.32	ID,X	15	96	30	14	0	—	—	0	0	NA	0	0		
1,1,2,2-Tetrachloroethane	mg/L	0.0085	0.035	0.078	12	77	4.7	35	0	—	—	0	0	0	0	0		
Tetrachloroethene	mg/L	0.005	0.005	0.045	25	170	12	35	1	0.00038	0.00038	0	0	0	0	0		
Trichloroethene	mg/L	0.79	0.79	0.14	530	530	530	35	1	0.00029	0.00029	0	0	0	0	0		
trans-1,2-Dichloroethene	mg/L	0.1	0.1	1.5	85	200	220	35	0	—	—	0	0	0	0	0		
trans-1,3-Dichloropropene	mg/L	NC	NC	NC	NC	NC	NC	32	0	—	—	NA	NA	NA	NA	NA		
1,2,3-Trichlorobenzene	mg/L	NC	NC	NC	NC	NC	NC	17	0	—	—	NA	NA	NA	NA	NA		
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	0.03	300	300	19	17	0	—	—	0	0	0	0	0		
1,1,1-Trichloroethane	mg/L	0.2	0.2	0.2	660	1300	1300	35	0	—	—	0	0	0	0	0		
1,1,2-Trichloroethane	mg/L	0.005	0.005	0.33	17	110	21	35	0	—	—	0	0	0	0	0		
Trichloroethene	mg/L	0.005	0.005	0.2	15	97	22	35	0	—	—	0	0	0	0	0		
Trichlorofluoromethane (CFC-11)	mg/L	2.6	7.3	NC	1100	1100	1100	35	0	—	—	0	0	NA	0	0		
1,2,3-Trichloropropane	mg/L	0.042	0.12	NC	ID	ID	84	14	0	—	—	0	0	NA	NA	0		
1,2,4-Trimethylbenzene	mg/L	0.063	0.063	0.017	56	56	56	17	0	—	—	0	0	0	0	0		
1,3,5-Trimethylbenzene	mg/L	0.072	0.072	0.045	61	61	61	17	0	—	—	0	0	0	0	0		
Vinyl acetate	mg/L	0.64	1.8	NC	4100	8900	8000	14	0	—	—	0	0	NA	0	0		
Vinyl chloride	mg/L	0.002	0.002	0.015	11	13	1	35	0	—	—	0	0	0	0	0		
Xylene (total)	mg/L	0.28	0.28	0.035	190	190	190	21	2	0.00018	0.00026	0	0	0	0	0		

TABLE D 1

**GROUNDWATER SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

<i>Michigan Act 451, Part 201 Generic Cleanup Criteria ^(a)</i>																
	<i>Residential & Commercial I Drinking Water</i>		<i>Industrial & Commercial II, III, IV Drinking Water</i>		<i>Groundwater Surface Water Interface</i>		<i>Residential & Commercial I Groundwater</i>		<i>Industrial & Commercial II, III & IV Groundwater</i>		<i>Groundwater Contact</i>					
	Units	b					<i>Volatilization to Indoor Air Inhalation</i>	<i>d</i>	<i>Volatilization to Indoor Air Inhalation</i>	<i>f</i>	<i>No. of Samples</i>	<i>N</i>	<i>f</i>	<i>M</i>	<i>V</i>	<i>Max Value Detect</i>
<i>Number of Exceedances of Part 201 Groundwater Generic Cleanup Criteria</i>																
<i>Semi-Volatile Organic Compounds</i>																
Acenaphthene	mg/L	13	38	0.019	4.2	4.2	4.2	37	1	0.000066 J	0.000066 J	0	0	0	0	0
Acenaphthylene	mg/L	0.052	0.15	ID	3.9	3.9	3.9	37	1	0.000041 J	0.000041 J	0	0	NA	0	0
Aniline	mg/L	0.053	0.22	0.004	NLV	NLV	140	14	0	—	—	0	0	0	NA	0
Anthracene	mg/L	0.043	0.043	ID	0.043	0.043	0.043	14	1	0.000054 J	0.000054 J	0	0	NA	0	0
Benidine	mg/L	0.0003	0.0003	ID	NLV	NLV	0.0071	14	0	—	—	0	0	NA	NA	0
Benzo(a)anthracene	mg/L	0.0021	0.0085	ID	NLV	NLV	0.0094	37	1	0.00018	0.00018	0	0	NA	NA	0
Benzo(a)pyrene	mg/L	0.005	0.005	ID	NLV	NLV	0.001	37	1	0.0002	0.0002	0	0	NA	NA	0
Benzo(b)fluoranthene	mg/L	0.0015	0.0015	ID	ID	ID	0.0015	37	1	0.00016	0.00016	0	0	NA	NA	0
Benzo(g,h,i)perylene	mg/L	0.001	0.001	NC	NLV	NLV	0.001	37	1	0.00034	0.00034	0	0	NA	NA	0
Benzo(k)fluoranthene	mg/L	0.001	0.001	NC	NLV	NLV	0.001	37	1	0.00008	0.00008	0	0	NA	NA	0
Benzoic acid	mg/L	32	92	NC	NLV	NLV	3500	14	14	0.003	0.006	0	0	NA	NA	0
Benzyl Alcohol	mg/L	10	29	NC	NLV	NLV	44000	14	0	—	—	0	0	NA	NA	0
4-Bromophenyl phenyl ether	mg/L	NC	NC	NC	NC	NC	NC	14	0	—	—	NA	NA	NA	NA	NA
Butyl benzylphthalate	mg/L	1.2	2.7	0.014	NLV	NLV	2.7	14	0	—	—	0	0	0	NA	0
Carbazole	mg/L	0.085	0.35	0.01	NLV	NLV	7.4	14	0	—	—	0	0	0	NA	0
4-Chloro-3-methylphenol	mg/L	0.15	0.42	0.0074	NLV	NLV	79	17	0	—	—	0	0	0	NA	0
4-Chloroaniline	mg/L	NC	NC	NC	NC	NC	NC	14	0	—	—	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/L	NC	NC	NC	NC	NC	NC	14	0	—	—	NA	NA	NA	NA	NA
bis(2-Chloroethyl) ether	mg/L	0.002	0.0083	0.015	38	210	5.7	14	0	—	—	0	0	0	0	0
2-Chloronaphthalene	mg/L	1.8	5.2	NC	ID	ID	6.7	14	0	—	—	0	0	NA	NA	0
2-Chlorophenol	mg/L	0.045	0.13	0.022	ID	ID	94	17	0	—	—	0	0	0	NA	0
4-Chlorophenyl phenyl ether	mg/L	NC	NC	NC	NC	NC	NC	14	0	—	—	NA	NA	NA	NA	NA
Chrysene	mg/L	0.0016	0.0016	ID	ID	ID	0.0016	37	1	0.00049	0.00049	0	0	NA	NA	0
Dibenz(a,h)anthracene	mg/L	0.002	0.002	ID	NLV	NLV	0.002	37	1	0.00009	0.00009	0	0	NA	NA	0
Dibenzofuran	mg/L	ID	ID	0.004	ID	ID	ID	14	0	—	—	NA	NA	0	NA	NA
1,2-Dichlorobenzene	mg/L	0.6	0.6	0.016	160	160	160	14	0	—	—	0	0	0	0	0
1,3-Dichlorobenzene	mg/L	0.0066	0.019	0.038	ID	ID	2	14	0	—	—	0	0	0	NA	0
1,4-Dichlorobenzene	mg/L	0.075	0.075	0.013	16	74	6.4	14	0	—	—	0	0	0	0	0
3,3'-Dichlorobenzidine	mg/L	0.0011	0.0043	0.0003	NLV	NLV	0.18	14	0	—	—	0	0	0	NA	0
2,4-Dichlorophenol	mg/L	0.073	0.21	0.019	NLV	NLV	48	17	0	—	—	0	0	0	NA	0
2,4-Dimethylphenol	mg/L	0.37	1	0.38	NLV	NLV	520	17	0	—	—	0	0	0	NA	0
3,4-Dimethylphenol	mg/L	0.01	0.029	NC	NLV	NLV	18	4	0	—	—	0	0	0	NA	0
Diethyl phthalate	mg/L	5.5	16	0.11	NLV	NLV	1100	14	0	—	—	0	0	0	NA	0
Dimethyl phthalate	mg/L	73	210	NC	NLV	NLV	4200	14	0	—	—	0	0	0	NA	0
Di-n-butylphthalate	mg/L	0.88	2.5	0.0097	NLV	NLV	11	14	0	—	—	0	0	0	NA	0
4,6-Dinitro-2-methylphenol	mg/L	0.02	0.02		NLV	NLV	9.5	17	0	—	—	0	0	0	NA	0
2,4-Dinitrophenol	mg/L	NC	NC	NC	NC	NC	NC	17	0	—	—	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/L	0.0077	0.032	NC	NLV	NLV	8.6	14	0	—	—	0	0	0	NA	0
2,6-Dinitrotoluene	mg/L	NC	NC	NC	NC	NC	NC	14	0	—	—	NA	NA	NA	NA	NA
Di-n-octyl phthalate	mg/L	0.13	0.38	ID	NLV	NLV	0.4	14	0	—	—	0	0	0	NA	0
1,2-Diphenylhydrazine	mg/L	NC	NC	NC	NC	NC	NC	14	0	—	—	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/L	0.006	0.006	0.032	NLV	NLV	0.32	14	1	0.003	0.003	0	0	0	NA	0
Fluoranthene	mg/L	0.21	0.21	0.0016	0.21	0.21	0.21	37	3	0.00006 J	0.00011	0	0	0	0	0

TABLE D 1

GROUNDWATER SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

Michigan Act 451, Part 201 Generic Cleanup Criteria ⁽¹⁾																
Semi Volatile Organic Compounds	Residential & Commercial I Drinking Water		Industrial & Commercial II, III, IV Drinking Water		Groundwater Surface Water Interface		Residential & Commercial I Groundwater		Industrial & Commercial II, III & IV Groundwater		Groundwater Contact		Number of Exceedances of Part 201 Groundwater Generic Cleanup Criteria			
	Units		b		d		f		N of Samples		N of Detects		Min Value Detect		Max Value Detect	
Fluorene	mg/L	0.88	2	0.012	2	2	37	1	0.000034	0.000034	0	0	0	0	0	0
Hexachlorobenzene	mg/L	0.001	0.001	0.0002	0.44	3	0.0046	14	0	--	--	0	0	0	0	0
Hexachlorobutadiene	mg/L	0.015	0.042	0.00005	1.6	3.2	0.4	14	0	--	--	0	0	0	0	0
Hexachlorocyclopentadiene	mg/L	0.05	0.05	ID	0.13	0.42	1.6	14	0	--	--	0	0	NA	0	0
Hexachloroethane	mg/L	0.0073	0.021	0.0067	27	50	1.9	14	0	--	--	0	0	0	0	0
Indeno(1,2,3-cd)pyrene	mg/L	0.002	0.002	ID	NLV	NLV	0.002	37	0	--	--	0	0	NA	NA	0
Isophorone	mg/L	0.77	3.1	0.57	NLV	NLV	990	14	0	--	--	0	0	0	NA	0
2-Methylnaphthalene	mg/L	0.26	0.75	ID	ID	ID	NC	37	0	--	--	0	0	NA	NA	0
1-Methylnaphthalene	mg/L	NC	NC	NC	NC	NC	25	17	1	--	--	NA	NA	NA	NA	NA
2-Methylphenol	mg/L	0.37	1	0.071	NLV	NLV	810	17	0	--	--	0	0	0	NA	0
4-Methylphenol	mg/L	0.37	1	0.071	NLV	NLV	810	14	0	0.000059	0.000059	0	0	0	NA	0
Naphthalene	mg/L	0.52	1.5	0.013	31	31	31	37	6	0.000026	0.000076	0	0	0	0	0
2-Nitroaniline	mg/L	NC	NC	NC	NC	NC	NC	17	0	--	--	NA	NA	NA	NA	NA
3-Nitroaniline	mg/L	NC	NC	NC	NC	NC	NC	14	0	--	--	NA	NA	NA	NA	NA
4-Nitroaniline	mg/L	NC	NC	NC	NC	NC	NC	17	0	--	--	NA	NA	NA	NA	NA
Nitrobenzene	mg/L	0.0034	0.0096	0.18	280	550	11	14	0	--	--	0	0	0	0	0
2-Nitrophenol	mg/L	0.02	0.058	ID	NLV	NLV	79	14	0	--	--	0	0	NA	NA	0
4-Nitrophenol	mg/L	NC	NC	NC	NC	NC	NC	14	0	--	--	NA	NA	NA	NA	NA
N,N-Diisopropylamine	mg/L	0.005	0.005	NC	NLV	NLV	0.36	14	0	--	--	0	0	NA	NA	0
N,N-Diisopropylamine	mg/L	0.27	1.1	NC	NLV	NLV	35	14	0	--	--	0	0	NA	NA	0
2,2-Dichloropropane	mg/L	NC	NC	NC	NC	NC	NC	14	0	--	--	NA	NA	NA	NA	NA
Pentachlorophenol	mg/L	0.001	0.001	CX	NLV	NLV	0.2	17	0	--	--	0	0	NA	NA	0
Phenanthrene	mg/L	0.052	0.15	0.0024	1	1	1	37	2	0.000076	0.000031	0	0	0	0	0
Phenol	mg/L	4.4	13	0.21	NLV	NLV	29000	17	0	--	--	0	0	0	NA	0
Pyrene	mg/L	0.14	0.14	ID	0.14	0.14	0.14	37	2	0.000045	0.000074	0	0	NA	0	0
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	0.03	300	300	19	14	0	--	--	0	0	0	0	0
2,4,5-Trichlorophenol	mg/L	0.73	2.1	NC	NLV	NLV	170	17	0	--	--	0	0	NA	NA	0
2,4,6-Trichlorophenol	mg/L	0.12	0.47	0.0044	NLV	NLV	10	17	0	--	--	0	0	0	NA	0

TABLE D 1

**GROUNDWATER SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC. MILL PROPERTY
PLAINWELL, MICHIGAN**

	<i>Michigan Act 451, Part 201 Generic Cleanup Criteria</i>															
	<i>Residential & Commercial I Drinking Water</i>	<i>Industrial & Commercial II, III, IV Drinking Water</i>	<i>Groundwater Surface Water Interface</i>	<i>Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation</i>	<i>Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation</i>	<i>Groundwater Contact</i>										
	<i>Units</i>	<i>b</i>		<i>d</i>		<i>f</i>	<i>N of Samples</i>	<i>N of Detects</i>	<i>Min Value Detect</i>	<i>Max Value Detect</i>	<i>Number of Exceedances of Part 201 Groundwater Generic Cleanup Criteria</i>					
											<i>b</i>	<i>d</i>	<i>e</i>	<i>f</i>		
PCB																
Aroclor-1016 (PCB-1016)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0033	14	0	—	—	0	0	0	0	0
Aroclor-1221 (PCB-1221)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0033	14	0	—	—	0	0	0	0	0
Aroclor-1232 (PCB-1232)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0033	14	0	—	—	0	0	0	0	0
Aroclor-1242 (PCB-1242)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0033	14	0	—	—	0	0	0	0	0
Aroclor-1248 (PCB-1248)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0033	14	0	—	—	0	0	0	0	0
Aroclor-1254 (PCB-1254)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0033	14	0	—	—	0	0	0	0	0
Aroclor-1260 (PCB-1260)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0033	14	0	—	—	0	0	0	0	0
Total PCBs	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0033	14	0	—	—	0	0	0	0	0

TABLE D 1

GROUNDWATER SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

Michigan Act 451, Part 201 Generic Cleanup Criteria ^(a)																	
	Residential & Commercial I Drinking Water		Industrial & Commercial II, III, IV Drinking Water		Groundwater Surface Water Interface		Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation		Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation		Groundwater Contact		Number of Exceedances of Part 201 Groundwater Generic Cleanup Criteria				
	Units		b		c		d		e		f		g		h		
Metals																	
Aluminum	mg/L	0.05	0.05				NLV	NLV	64000	14	14	0.013	0.062	1	1	NA	0
Antimony	mg/L	0.006	0.006	0.13			NLV	NLV	68	14	5	0.0006	0.0051	0	0	0	0
Arsenic	mg/L	0.01	0.01	0.15			NLV	NLV	4.3	35	17	0.00047	0.03	5	5	0	0
Barium	mg/L	2	2	GX			NLV	NLV	14000	14	14	0.046	0.313	0	0	NA	0
Beryllium	mg/L	0.004	0.004	G			NLV	NLV	290	14	0	—	—	0	0	0	0
Cadmium	mg/L	0.005	0.005	GX			NLV	NLV	190	35	3	0.000074	0.01	1	1	NA	0
Calcium	mg/L	NC	NC	NC			NC	NC	NC	14	14	67.6	320	NA	NA	NA	NA
Chromium Total	mg/L	0.1	0.1	0.011			NLV	NLV	460	35	16	0.0005	0.02	0	0	3	0
Cobalt	mg/L	0.04	0.1	0.1			NLV	NLV	2400	14	7	0.0005	0.0013	0	0	0	0
Copper	mg/L	1	1	G			NLV	NLV	7400	35	14	0.00065	0.03	0	0	0	0
Iron	mg/L	0.3	0.3	NC			NLV	NLV	58000	14	14	0.039	35	4	4	NA	0
Lead	mg/L	0.004	0.004	GX			NLV	NLV	ID	38	7	0.00062	0.02	3	3	NA	NA
Magnesium	mg/L	400	1100	NC			NLV	NLV	1000000	14	14	16.7	27.2	0	0	NA	0
Manganese	mg/L	0.05	0.05	GX			NLV	NLV	9100	14	14	0.005	2.92	12	12	NA	0
Mercury	mg/L	0.002	0.002	0.0000013			0.056	0.056	0.056	35	1	—	0.000037	0	0	1	0
Mercury	mg/L	0.002	0.002	0.0000013			0.056	0.056	0.056	14	8	0.0000011	0.0000324	0	0	6	0
Nickel	mg/L	0.1	0.1	G			NLV	NLV	74000	14	14	0.0005	0.002	0	0	0	0
Phosphorus	mg/L	NC	NC	NC			NC	NC	NC	14	14	2.4	4.24	NA	NA	NA	NA
Selenium	mg/L	0.05	0.05	0.005			NLV	NLV	970	35	2	0.0009	0.00096	0	0	0	0
Silver	mg/L	0.034	0.098	0.0002			NLV	NLV	1500	14	0	—	—	0	0	0	0
Sodium	mg/L	120	350	NC			NLV	NLV	1000000	14	14	17.3	102	0	0	NA	0
Thallium	mg/L	0.002	0.002	0.0037			NLV	NLV	13	14	0	—	—	0	0	0	0
Vanadium	mg/L	0.0045	0.062	0.012			NLV	NLV	970	14	1	0.0006	0.0006	0	0	0	0
Zinc	mg/L	2.4	5	G			NLV	NLV	110000	35	7	0.01	0.18	0	0	0	0
Wet																	
Cyanide	mg/L	0.2	0.2	0.0052			NLV	NLV	NC	14	5	0.01	0.01	0	0	5	0

TABLE D 1

**GROUNDWATER SCREENING CRITERIA AND SUMMARY OF EXCEEDANCES
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Notes.

- parameter not analyzed.
- G groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water
- J estimated concentration
- ID means insufficient data to develop criterion
- mg/L milligrams per liter
- NC Michigan Act 451 Part 201 Cleanup Criteria exists for this parameter
- NLV chemical is not likely to volatilize
- PCBs polychlorinated biphenyls
- NA Not Applicable
- U not present to above the associated level
- X The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.

Michigan Act 451, Part 201 General Cleanup Criteria

- a Residential & Commercial I Drinking Water
- b Industrial & Commercial II, III, IV Drinking Water
Groundwater Surface Water Interface Protection
- d Residential & Commercial I Groundwater Volatilization to indoor Air Inhalation
Industrial and Commercial II, III & Groundwater Volatilization to Indoor Air Inhalation
- f Groundwater Contact Protection

TABLE D.2

**GROUNDWATER DATA SUMMARY VOCs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL MICHIGAN**

Sample Location Sample Depth Sample Type	Units	PM MW1 12/16/2008	PM MW2 12/16/2008	PM-MW3 12/17/2008	PM MW4 12/17/2008	PM-MW4 12/17/2008 Duplicate	PM-MW5 12/17/2008	PM MW6 12/16/2008	PM-MW7 12/17/2008	PM-MW8 12/17/2008	PM MW9 12/16/2008	PM MW10 12/17/2008	PM MW11 12/16/2008	PM MW12 12/16/2008	PM MW12 12/16/2008 Duplicate
Acetone	mg/L	0.005 U	0.005 U	0.005	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Acrylonitril	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Benzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Bromobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Bromodichloromethane	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Bromoform	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Bromomethane (Methyl Bromide)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Butanone (Methyl Ethyl Ketone)	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
n-Butylbenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
tert-Butylbenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Carbon disulfide	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chlorobromomethane	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chloroethane	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Chloroethyl vinyl ether	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chloroform (Trichloromethane)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chloromethane (Methyl Chloride)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.006
2-Chlorotoluene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Chlorotoluene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Cymene (p-Isopropyltoluene)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Dibromochloromethane	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Dibromomethane	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2-Dichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,3-Dichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,4-Dichlorobenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Dichlorodifluoromethane (CFC 12)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,1-Dichloroethane	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2-Dichloroethane	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,1-Dichloroethene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
cis-1,2-Dichloroethene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
trans-1,2-Dichloroethene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,1-Dichloropropene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2-Dichloropropane	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
cis-1,2-Dichloropropene	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,3-Dichloropropane	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
cis-1,3-Dichloropropene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
trans-1,3-Dichloropropene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2,2-Dichloropropane	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Diisopropyl ether	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ethylbenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Hexachlorobutadiene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Hexanone	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Isopropylbenzene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U

TABLE D.2

**GROUNDWATER DATA SUMMARY VOCs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL MICHIGAN**

Sample Location		PM MW1	PM MW2	PM-MW3	PM-MW4	PM MW4	PM-MW5	PM-MW6	PM MW7	PM-MW8	PM MW9	PM MW10	PM-MW11	PM MW12	PM MW12
Sample Date		12/16/2008	12/16/2008	12/17/2008	12/17/2008	12/17/2008	12/17/2008	12/16/2008	12/17/2008	12/17/2008	12/16/2008	12/17/2008	12/16/2008	12/16/2008	12/16/2008
Sample Type	Units					Duplicate									Duplicate
Methyl Tert B tyl Ether	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Methylene chloride	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
4-Methyl 2 Pentanone (Methyl Isobutyl Ketone)	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
N phthalene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2 Phenylbutane (sec-B tylbenzene)	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
n-Propylbenzen	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Styrene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,1,2 Tetrachloroethan	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2,2 Tetrachloroethane	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Tetrachloroethene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
T i en	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,3-Trichlorobenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,4-Trichlorobenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,1 Trichloroethane	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2 Trichloroethane	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichloroethene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichlorofluoromethane (CFC 11)	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,3-Trichloropropane	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,4-Trimethylbenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3,5-Trimethylbenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Vinyl acetate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
m&p-Xylene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
o-Xylene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Xylene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE D.2

**GROUNDWATER DATA SUMMARY VOCs
FORMER PLAINWELL, INC. MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location Sample Depth Sample Type	Units	SGWA 1 4/21/1997	SGWA 2 4/21/1997	SGWA 3 4/22/1997	SGWA-4 4/22/1997	SGWA-5 4/22/1997	SGWB-1 4/22/1997	SGWB-2 4/22/1997	SGWB-3 4/22/1997	SGWB-4 4/22/1997	SGWB-5 4/22/1997	SGWB-6 4/22/1997	SGWB-7 4/22/1997	SGWB-8 4/22/1997	SGWB-9 4/22/1997	SGWB 10 4/22/1997	SGWG-1 4/22/1997	SGWK 1 4/22/1997
Acetone	mg/L	—	—	—	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Acrylonitril	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Benzene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromobenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bromodichloromethane	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromoform	mg/L	—	—	—	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Bromomethane (Methyl Bromide)	mg/L	—	—	—	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2-Butanone (Methyl Ethyl Keto)	mg/L	—	—	—	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Butylbenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
tert-Butylbenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carbonyl disulfide	mg/L	—	—	—	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Carbon tetrachloride	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Chlorobenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Chlorobromomethane	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chloroethane	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2-Chloroethyl vinyl ether	mg/L	—	—	—	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chloroform (Trichloromethane)	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Chloromethane (Methyl Chloride)	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2-Chlorotoluene	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4-Chlorotoluene	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cymene (p-Isopropyltoluene)	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dibromochloromethane	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Dibromomethane	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.001 U	0.001 U	0.001 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,2-Dichlorobenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,3-Dichlorobenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,4-Dichlorobenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dichlorodifluoromethane (CFC 12)	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,1-Dichloroethane	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,2-Dichloroethane	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1-Dichloroethene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
cis-1,2-Dichloroethene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
trans-1,2-Dichloroethene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1-Dichloropropene	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,2-Dichloropropene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
cis-1,2-Dichloropropene	mg/L	—	—	—	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,3-Dichloropropane	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
cis-1,3-Dichloropropene	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
trans-1,3-Dichloropropene	mg/L	—	—	—	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2,2-Dichloropropane	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diisopropyl ether	mg/L	0.005 U	0.005 U	0.005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ethylbenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Hexachlorobutadiene	mg/L	0.005 U	0.005 U	0.005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2-Hexanone	mg/L	—	—	—	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Isopropylbenzene	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE D.2
GROUNDWATER DATA SUMMARY VOCs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

Sample Location		SGWA 1	SGWA 2	SGWA 3	SGWA-4	SGWA 5	SGWB 1	SGWB-2	SGWB-3	SGWB-4	SGWB-5	SGWB-6	SGWB-7	SGWB-8	SGWB 9	SGWB 10	SGWG-1	SGWK 1
Sample Date		4/21/1997	4/21/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997
Sample Type	Units																	
Methyl Tert Butyl Ether	mg/L	0.005 U	0.005 U	0.005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Methylene chloride	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
4-Methyl 2 Pentanone (Methyl Isobutyl Ketone)	mg/L	—	—	—	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
N phthalene	mg/L	0.008 U	0.008 U	0.008 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2 Phenylbutane (sec Butylbenzene)	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
n-Propylbenzen	mg/L	0.0005 U	0.0005 U	0.0005 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Styrene	mg/L	—	—	—	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,1,2 Tetrachloroethane	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,1,2,2 Tetrachloroethane	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Tetrachloroethene	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
T luen	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,2,3-Trichlorobenzen	mg/L	0.002 U	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,2,4-Trichlorobenzen	mg/L	0.002 U	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,1,1 Trichl roethane	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1,2 Trichloroethane	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Trichloroethen	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Trichlorofl aromethane (CFC 11)	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,2,3-Trichloropropane	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,2,4-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,3,5-Trimethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	—	—	—	—	—	—	—	—	—	—	—	—	—	—
V nyl acetate	mg/L	—	—	—	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
V nyl hlone	mg/L	0.0002 U	0.0002 U	0.0002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
m&p-Xylene	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
o-Xylene	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Xylene (total)	mg/L	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

TABLE D.2

**GROUNDWATER DATA SUMMARY VOCs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL MICHIGAN**

Sample Location		TW-6	TW-6	TW-8	TW 9
Sample ID		9/6/2006	9/6/2006	9/6/2006	9/6/2006
Sample Type	Units		Displ cat		
Aceton	mg/L	0.02 U	0.02 U	0.02 U	0.02 U
Acryl nitril	mg/L	0.002 U	0.002 U	0.002 U	0.002 U
Benzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Bromobenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Brom form	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl Bromid)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U
2 B tan ne (Methyl Ethyl Ketone)	mg/L	-	-	-	-
n-B tylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
tert B tylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfid	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Carbo tetrachlorid	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Chlor benzen	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobr omomethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Chl roethane	mg/L	0.005 U	0.005 U	0.005 U	0.005 U
2-Chloroethyl vinyl ether	mg/L	-	-	-	-
Chl roform (Trichloromethane)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Chl romethane (Methyl Chl rid)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U
2-Chlorotoluene	mg/L	-	-	-	-
4-Chlorotoluene	mg/L	-	-	-	-
Cymene (p-Isopropyltol en)	mg/L	-	-	-	-
Dibromochl romethane	mg/L	-	-	-	-
Dibrom methane	mg/L	-	-	-	-
1,2 Dibromo-3-chloropropane (DBCP)	mg/L	-	-	-	-
1,2 D bromoethane (Ethylene Dibromide)	mg/L	-	-	-	-
1,2 Dichlorobenzen	mg/L	-	-	-	-
1,3-Dichl robenzen	mg/L	-	-	-	-
1,4-Di hlorobenzen	mg/L	-	-	-	-
Dichlorodifl oromethane (CFC 12)	mg/L	-	-	-	-
1,1 Dichl roethan	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,2 Di hl roethan	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,1 D hl roethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2 Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,2 Dichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,1 Dichloropropene	mg/L	-	-	-	-
1,2 Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2 Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropene	mg/L	-	-	-	-
cis-1,3-Dichl ropropene	mg/L	-	-	-	-
trans-1,3-Dichloropropene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
2,2 Dichloropropan	mg/L	-	-	-	-
Diisopr pyl ether	mg/L	-	-	-	-
Ethylbenzene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Hexachl robutadiene	mg/L	-	-	-	-
2 Hexanone	mg/L	0.005 U	0.005 U	0.005 U	0.005 U
Isopropylbenzen	mg/L	-	-	-	-

TABLE D.2

**GROUNDWATER DATA SUMMARY VOCs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location		TW-6	TW-6	TW-8	TW-9
Sample Date		9/6/2006	9/6/2006	9/6/2006	9/6/2006
Sample Type	Units		Duplicate		
Methyl Tert Butyl Ether	mg/L	—	—	—	—
Methylene chloride	mg/L	0.005 U	0.005 U	0.005 U	0.005 U
4-Methyl 2 Pentanone (Methyl Isobutyl Ketone)	mg/L	0.005 U	0.005 U	0.005 U	0.005 U
Naphthalene	mg/L	—	—	—	—
2-Phenylbutane (sec Butylbenzene)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
n-Propylbenzene	mg/L	—	—	—	—
Styrene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,1,1,2-Tetrachloroethane	mg/L	—	—	—	—
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.001 U	0.001 U	0.00038 J	0.001 U
Trichloroethene	mg/L	0.001 U	0.001 U	0.00029 J	0.001 U
1,2,3-Trichlorobenzene	mg/L	—	—	—	—
1,2,4-Trichlorobenzene	mg/L	—	—	—	—
1,1,1-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC 11)	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	mg/L	—	—	—	—
1,2,4-Trimethylbenzene	mg/L	—	—	—	—
1,3,5-Trimethylbenzene	mg/L	—	—	—	—
Vinyl acetate	mg/L	—	—	—	—
Vinyl chloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
m,p-Xylene	mg/L	0.002 U	0.002 U	0.00026 J	0.00018 J
o-Xylene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U
Xylene (total)	mg/L	0.003 U	0.003 U	0.00126 J	0.00118 J

TABLE D.3

GROUNDWATER DATA SUMMARY SVOCs AND PAHs
FORMER PLAINWELL, INC. MILL PROPERTY
PLAINWELL, MICHIGAN

Sample Location		PM MW1	PM MW2	PM MW3	PM MW4	PM-MW4	PM MW5	PM MW6	PM MW7	PM MW8	PM MW9	PM MW10	PM-MW11
Sample date		12/16/2008	12/16/2008	12/17/2008	12/17/2008	12/17/2008	12/17/2008	12/16/2008	12/17/2008	12/17/2008	12/16/2008	12/17/2008	12/16/2008
Sample Type	Units					Duplicate							
Acenaphthene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Acenaphthylene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Aniline	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Anthracene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Benzidine	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(a)anthracene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Benzo(b)pyrene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Benzo(b)fluoranthene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Benzo(g,h)perylene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Benz(k)fluoranthene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Benzonitrile	mg/L	0.004	0.003	0.004	0.004	0.004	0.003	0.003	0.005	0.003	0.003	0.003	0.006
Benzyl Alcohol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
bis(2-Chloroethoxy)methane	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
bis(2-Chloroethyl)ether	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
bis(2-Ethylhexyl)phthalate	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
4-Bromophenyl phenyl ether	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Butyl benzylphthalate	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Carbazole	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
4-Chloro-3-methylphenol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
4-Chloroaniline	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2-Chloronaphthalene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2-Chlorophenol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
4-Chlorophenyl phenyl ether	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Chrysene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Dibenz(a,h)anthracene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Dibenzofuran	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,2-Dichlorobenzene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,3-Dichlorobenzene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,4-Dichlorobenzene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
3,3-Dichlorobenzidine	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
2,4-Dichlorophenol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Diethyl phthalate	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Dimethyl phthalate	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2,4-Dimethylphenol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
3,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
4,6-Dinitro-2-methylphenol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2,4-Dinitrophenol	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
2,4-Dinitrotoluene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2,6-Dinitrotoluene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Di-n-octyl phthalate	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
1,2-Diphenylhydrazine	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Fluoranthene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Fluorene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Hexachlorobenzene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Hexachlorobutadiene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

TABLE D3
GROUNDWATER DATA SUMMARY SVOCs AND PAHs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN

Sample Location		PM MW1	PM MW2	PM MW3	PM MW4	PM MW4	PM MW5	PM MW6	PM MW7	PM MW8	PM MW9	PM MW10	PM MW11
Sample date		12/16/2008	12/16/2008	12/17/2008	12/17/2008	12/17/2008	12/17/2008	12/16/2008	12/17/2008	12/17/2008	12/16/2008	12/17/2008	12/16/2008
Sample Type	Units					Duplicate							
Hexachlorocycl pentadiene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Hexachloroethane	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Indeno(1,2,3-cd)pyrene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Isophorone	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1 Methylanthralene	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
2 Methylanthralene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2 Methylphenol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
4-Methylphenol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Naphthalene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2 Nitroaniline	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
3-Nitroaniline	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
4-Nitroaniline	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
N trobenzene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2 N trophenol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
4-Nitrophenol	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
N-N trosodi-n-propylamine	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
N-N trosodiphenylamine	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2,2 -oxybis(1-Chloropropan)	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Pentachlorophenol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Phenanthrene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Phenol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Pyrene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,2,4-Trichlorobenzene	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2,4,5-Trichlorophenol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
2,4,6-Trichlorophenol	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

TABLE D 3

**GROUNDWATER DATA SUMMARY SVOCs AND PAHs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location		PM MW12	PM MW12	SGWA 1	SGWA 2	SGWA 3	SGWA-4	SGWA 5	SGWB-1	SGWB-2	SGWB 3	SGWB-4	SGWB 5	SGWB-6	SGWB-7
Sample date		12/16/2008	12/16/2008	4/21/1997	4/21/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997
Sample Type	Units		Duplicate												
Acenaphthene	mg/L	0.002 U	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Acenaphthylene	mg/L	0.002 U	0.002 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Aniline	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
Anthracene	mg/L	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Benzadiazole	mg/L	0.01 U	0.01 U	—	—	—	—	—	—	—	—	—	—	—	—
Benz (a)anthracene	mg/L	0.002 U	0.002 U	0.00001 U	0.00001 U	0.00001 U	0.00001 U	0.00001 U	0.00001 U	0.00001 U	0.00001 U	0.00001 U	0.00001 U	0.00001 U	0.00018
Benz (b)pyrene	mg/L	0.002 U	0.002 U	0.000004 U	0.000004 U	0.000004 U	0.000004 U	0.000004 U	0.000004 U	0.000004 U	0.000004 U	0.000004 U	0.000004 U	0.000004 U	0.0002
Benz (b)fluoranthene	mg/L	0.002 U	0.002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00016
Benzo(g,h,i)perylene	mg/L	0.002 U	0.002 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.00034
Benzo(k)fluoranthene	mg/L	0.002 U	0.002 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00008
Benzoic acid	mg/L	0.005	0.005	—	—	—	—	—	—	—	—	—	—	—	—
Benzyl Alcohol	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
bis(2-Chloroethoxy)methane	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
bis(2-Chloroethoxy)ether	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
bis(2-Ethylhexyl)phthalate	mg/L	0.002 U	0.003	—	—	—	—	—	—	—	—	—	—	—	—
4-Bromophenyl phenyl ether	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
Butyl benzylphthalate	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
Carbazole	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
4-Chloro-3-methylphenol	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
4-Chloroaniline	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
2-Chloronaphthalene	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
2-Chlorophenol	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
4-Chlorophenyl phenyl ether	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
Chrysene	mg/L	0.002 U	0.002 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00049
Dibenz(a,h)anthracene	mg/L	0.002 U	0.002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00009
Dibenzofuran	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
1,2-Dichlorobenzene	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
1,3-Dichlorobenzene	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
1,4-Dichlorobenzene	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
3,3'-Dichlorobenzidine	mg/L	0.004 U	0.004 U	—	—	—	—	—	—	—	—	—	—	—	—
2,4-Dichlorophenol	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
Diethyl phthalate	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
Dimethyl phthalate	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
2,4-Dimethylphenol	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
3,4-Dimethylphenol	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Di-n-butylphthalate	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
4,6-Dinitro-2-methylphenol	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
2,4-Dinitrophenol	mg/L	0.004 U	0.004 U	—	—	—	—	—	—	—	—	—	—	—	—
2,4-Dinitrotoluene	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
2,6-Dinitrotoluene	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
Di-n-octyl phthalate	mg/L	0.003 U	0.003 U	—	—	—	—	—	—	—	—	—	—	—	—
1,2-Diphenylhydrazine	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
Fluoranthene	mg/L	0.002 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0011
Fluorene	mg/L	0.002 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Hexachlorobenzene	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—
Hexachlorobutadiene	mg/L	0.002 U	0.002 U	—	—	—	—	—	—	—	—	—	—	—	—

TABLE D.3

**GROUNDWATER DATA SUMMARY SVOCs AND PAHs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location		PM-MW12	PM MW12	SGWA 1	SGWA 2	SGWA-3	SGWA-4	SGWA 5	SGWB-1	SGWB-2	SGWB-3	SGWB-4	SGWB-5	SGWB-6	SGWB-7
Sample date		12/16/2008	12/16/2008	4/21/1997	4/21/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997
Sample Type	Units		Duplicate												
Hexachlorocyclopentadien	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
Hexachl roethane	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/L	0.002 U	0.002 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U
Isophoro	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
1 Methyl naphthalene	mg/L	--	--	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
2 Methyl naphthalene	mg/L	0.002 U	0.002 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
2 Methyl phenol	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl phenol	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	mg/L	0.002 U	0.002 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
2 N troaniline	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzen	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
2 Nitrophenol	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
4-N' trophen I	mg/L	0.004 U	0.004 U	--	--	--	--	--	--	--	--	--	--	--	--
N N trosodi n-propylamine	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
N N trosodiphenylamine	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
2,2 -oxybis(1-Chloropropane)	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	mg/L	0.002 U	0.002 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
Phenol	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
Pyren	mg/L	0.002 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,4-Trichl robenzene	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--
2,4 6-Trichlorophenol	mg/L	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--

TABLE D 3

**GROUNDWATER DATA SUMMARY SVOCs AND PAHs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location		SGWB-8	SGWB-9	SGWB-10	SGWB-1	SGWK 1	TW-5	TW-6	TW 7	TW 7	TW-8	TW 9
Sample date		4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	9/6/2006	9/6/2006	9/6/2006	9/6/2006	9/6/2006	9/6/2006
Sample Type	Units								Duplicate			
Acenaphthene	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.000066 J
Acenaphthylene	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.000041 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Aniline	mg/L	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.000054 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Benzidine	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	0.00001 U	0.00001 U	0.00001 U	0.00001 U	0.00001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(b)pyrene	mg/L	0.000004 U	0.000004 U	0.000004 U	0.000004 U	0.000004 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(b)fluoranthene	mg/L	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(g,h,i)perylene	mg/L	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(k)fluoranthene	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	0.005 U	-	0.005 U	0.005 U	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	0.01 U	-	0.01 U	0.01 U	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibenz(a,h)anthracene	mg/L	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
3,3-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	0.01 U	-	0.01 U	0.01 U	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	0.005 U	-	0.005 U	0.005 U	-	-
3,4-Dimethylphenol	mg/L	-	-	-	-	-	0.02 U	0.02 U	0.02 U	0.02 U	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	0.02 U	-	0.02 U	0.02 U	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	0.025 U	-	0.025 U	0.025 U	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	mg/L	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00011 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00006 J
Fluorene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.000034 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-

TABLE D.3

**GROUNDWATER DATA SUMMARY SVOCs AND PAHs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location		SGWB-8	SGWB-9	SGWB-10	SGWG-1	SGWK 1	TW 5	TW-6	TW 7	TW 7	TW-8	TW 9
Sample date		4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	9/6/2006	9/6/2006	9/6/2006	9/6/2006	9/6/2006	9/6/2006
Sample Type	Units								Duplicate			
Hexachl. rocydlopentadiene	mg/L	—	—	—	—	—	—	—	—	—	—	—
Hexachloroethane	mg/L	—	—	—	—	—	—	—	—	—	—	—
Indeno(1,2,3-cd)pyrene	mg/L	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Isophoro	mg/L	—	—	—	—	—	—	—	—	—	—	—
1-Methylnaphthalene	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	—	—	—	—	—	—
2-Methylnaphthalen	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.000059 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Methylphenol	mg/L	—	—	—	—	—	0.01 U	—	0.01 U	0.01 U	—	—
4-Methylphenol	mg/L	—	—	—	—	—	—	—	—	—	—	—
N. phthalene	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.000076 J	0.000034 J	0.000033 J	0.000026 J	0.000055 J	0.000028 J
2-N troaniline	mg/L	—	—	—	—	—	—	—	—	—	—	—
3-N troaniline	mg/L	—	—	—	—	—	—	—	—	—	—	—
4-N troaniline	mg/L	—	—	—	—	—	—	—	—	—	—	—
N. trobenzene	mg/L	—	—	—	—	—	—	—	—	—	—	—
2-N trophen. I	mg/L	—	—	—	—	—	0.005 U	—	0.005 U	0.005 U	—	—
4-N trophenol	mg/L	—	—	—	—	—	0.02 U	—	0.025 U	0.025 U	—	—
N. N. trosodi-n-propylamine	mg/L	—	—	—	—	—	—	—	—	—	—	—
N. N. trosodiphenylamine	mg/L	—	—	—	—	—	—	—	—	—	—	—
2,2 -oxybis(1-Chloropropane)	mg/L	—	—	—	—	—	—	—	—	—	—	—
Pentachlorophenol	mg/L	—	—	—	—	—	0.001 U	—	0.001 U	0.001 U	—	—
Phenanthrene	mg/L	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.00031 J	0.002 U	0.002 U	0.002 U	0.002 U	0.000076 J
Phenol	mg/L	—	—	—	—	—	0.005 U	—	0.005 U	0.005 U	—	—
Pyrene	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.000074 J	0.005 U	0.001 U	0.001 U	0.005 U	0.000045 J
1,2,4-Trichlorobenzene	mg/L	—	—	—	—	—	—	—	—	—	—	—
2,4,5-Trichlorophenol	mg/L	—	—	—	—	—	0.005 U	—	0.005 U	0.005 U	—	—
2,4,6-Trichlorophenol	mg/L	—	—	—	—	—	0.004 U	—	0.004 U	0.004 U	—	—

TABLE D 4

**GROUNDWATER DATA SUMMARY PCBs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

<i>Sample Location</i>		<i>PM-MW1</i>	<i>PM MW2</i>	<i>PM MW3</i>	<i>PM MW4</i>	<i>PM MW4</i>	<i>PM MW5</i>	<i>PM-MW6</i>	<i>PM MW7</i>	<i>PM MW8</i>	<i>PM MW9</i>	<i>PM MW10</i>
<i>Sample D t</i>		<i>12/16/2008</i>	<i>12/16/2008</i>	<i>12/17/2008</i>	<i>12/17/2008</i>	<i>12/17/2008</i>	<i>12/17/2008</i>	<i>12/16/2008</i>	<i>12/17/2008</i>	<i>12/17/2008</i>	<i>12/16/2008</i>	<i>12/17/2008</i>
<i>Sample Typ</i>						<i>Duplicate</i>						
PCBs	Units											
Aroclor 1016 (PCB-1016)	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Aroclor 1221 (PCB-1221)	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Aroclor 1232 (PCB-1232)	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Aroclor 1242 (PCB-1242)	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Aroclor 1248 (PCB-1248)	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Aroclor-1254 (PCB-1254)	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Aroclor 1260 (PCB-1260)	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Total PCBs	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U

TABLE D 4

**GROUNDWATER DATA SUMMARY PCBs
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

<i>Sample Location</i>		<i>PM MW11</i>	<i>PM MW12</i>	<i>PM MW12</i>	<i>TW 3</i>	<i>TW 3</i>	<i>TW-6</i>
<i>Sample Date</i>		<i>12/16/2008</i>	<i>12/16/2008</i>	<i>12/16/2008</i>	<i>9/6/2006</i>	<i>9/6/2006</i>	<i>9/6/2006</i>
<i>Sample Type</i>				<i>Duplicate</i>		<i>Duplicate</i>	
<i>Units</i>							
PCBs							
Aroclor 1016 (PCB-1016)	mg/L	0.0002 U	0.0002 U	0.0002 U	—	—	—
Aroclor-1221 (PCB-1221)	mg/L	0.0002 U	0.0002 U	0.0002 U	—	—	—
Aroclor 1232 (PCB-1232)	mg/L	0.0002 U	0.0002 U	0.0002 U	—	—	—
Aroclor-1242 (PCB-1242)	mg/L	0.0002 U	0.0002 U	0.0002 U	—	—	—
Arocl 1248 (PCB-1248)	mg/L	0.0002 U	0.0002 U	0.0002 U	—	—	—
Arocl r-1254 (PCB-1254)	mg/L	0.0002 U	0.0002 U	0.0002 U	—	—	—
Aroclor-1260 (PCB-1260)	mg/L	0.0002 U	0.0002 U	0.0002 U	—	—	—
Total PCBs	mg/L	0.0002 U	0.0002 U	0.0002 U	—	—	—

TABLE D5

**GROUNDWATER DATA SUMMARY INORGANICS
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

<i>Sample Location</i>		<i>PM MW1</i>	<i>PM MW2</i>	<i>PM MW3</i>	<i>PM MW4</i>	<i>PM MW4</i>	<i>PM-MW5</i>	<i>PM-MW6</i>	<i>PM MW7</i>	<i>PM MW8</i>	<i>PM MW9</i>	<i>PM MW10</i>	<i>PM-MW11</i>	<i>PM MW12</i>	<i>PM MW12</i>	<i>SGWA 1</i>
<i>Sample Depth</i>		<i>12/16/2008</i>	<i>12/16/2008</i>	<i>12/17/2008</i>	<i>12/17/2008</i>	<i>12/17/2008</i>	<i>12/17/2008</i>	<i>12/16/2008</i>	<i>12/17/2008</i>	<i>12/17/2008</i>	<i>12/16/2008</i>	<i>12/17/2008</i>	<i>12/16/2008</i>	<i>12/16/2008</i>	<i>12/16/2008</i>	<i>4/21/1997</i>
<i>Sample Type</i>						<i>Duplicate</i>									<i>Duplicate</i>	
	<i>Units</i>															
Aluminum	mg/L	0.023	0.028	0.062 ^{ab}	0.02	0.022	0.013	0.031	0.038	0.024	0.019	0.018	0.018	0.018	0.026	—
Antimony	mg/L	0.0005 U	0.0006	0.0051	0.0015	0.0015	0.0007	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	—
Arsenic	mg/L	0.0009	0.003	0.0029	0.0009	0.0009	0.003	0.0005	0.0131 ^{ab}	0.0012	0.0005	0.0014	0.0047	0.0113	0.0115 ^a	—
Barium	mg/L	0.064	0.068	0.118	0.064	0.064	0.179	0.093	0.313	0.098	0.124	0.09	0.068	0.046	0.046	—
Beryllium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	—
Cadmium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	—
Calcium	mg/L	68.4	67.6	92.6	77.3	80.6	92.1	70.6	92.6	93.2	72.2	112	110	320	317	—
Chromium Total	mg/L	0.0005 U	0.0005 U	0.0007	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005	0.0005 U	0.0005 U	0.0005 U	—
Chloride	mg/L	0.0005 U	0.0005 U	0.0008	0.0005	0.0006	0.0006	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0013	0.0005 U	0.0008	0.001	—
Copper	mg/L	0.0006	0.0008	0.0042	0.004	0.0041	0.001	0.0006	0.0005 U	0.0005	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	—
Iron	mg/L	0.055	0.084	0.28	0.058	0.039	0.24	0.1	1.4 ^{ab}	0.22	0.043	0.15	3.3	35 ^{ab}	33 ^{ab}	—
Lead	mg/L	0.0005 U	0.0005 U	0.0059 ^a	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Magnesium	mg/L	17.3	16.7	19.4	17.7	18.2	19.6	18.7	21	17.7	18.7	27.2	24.1	26.8	26	—
Manganese	mg/L	0.005	0.329 ^{ab}	0.538 ^{ab}	0.538 ^{ab}	0.542 ^{ab}	1.04 ^{ab}	0.005	2.57 ^{ab}	0.484 ^{ab}	0.318 ^{ab}	1.21 ^{ab}	0.665 ^{ab}	2.83 ^{ab}	2.92 ^{ab}	—
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	—
Mercury	mg/L	0.000001 U	0.0000018	0.0000324	0.0000197 ^a	0.00003	0.0000057 ^a	0.000001 U	0.0000103	0.000001 U	0.0000011	0.0000012	0.000001 U	0.000001 U	0.000001 U	—
Nickel	mg/L	0.0005	0.0007	0.0012	0.0011	0.001	0.001	0.0005	0.0009	0.0008	0.0009	0.002	0.0005	0.0007	0.001	—
Potassium	mg/L	2.82	4.24	4.13	2.86	2.98	2.93	2.65	2.57	3.49	2.4	2.59	3.69	3.12	3.09	—
Selenium	mg/L	0.0005 U	0.0005 U	0.0009	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	—
Silica	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	—
Sodium	mg/L	47.6	43.7	17.3	19.1	19.8	30.2	79	28.3	28.3	102	28	45.6	21.6	20.8	—
Thallium	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	—
Vanadium	mg/L	0.0005 U	0.0005 U	0.0006	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	—
Zinc	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	—
Cyanide	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01c	0.01 U	0.01c	0.01 U	0.01 U	0.01	0.01	0.01 U	0.01	—

TABLE D.5

**GROUNDWATER DATA SUMMARY INORGANICS
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location		SGWA-2	SGWA-3	SGWA-4	SGWA-5	SGWB-1	SGWB-2	SGWB-3	SGWB-4	SGWB-5	SGWB-6	SGWB-7	SGWB-8	SGWB-9	SGWB-10	SGWC-1	SGWK-1	TW-3	TW-3	TW-5
Sample Date		4/21/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	4/22/1997	9/6/2006	9/6/2006	9/6/2006
Sample Type																			Duplicate	
	Units																			
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	-	-	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.025	0.026 ^{sp}	0.00047 J
Barium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.010 U	0.01 ^{sp}	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.000074 J	0.00011 J	0.0002 U
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium Total	mg/L	-	-	0.01	0.02 ^f	0.01	0.01	0.02 ^f	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.001 U	0.001 U	0.001 U
Cobalt	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.00065 J	0.00071 J	0.00080 J
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.00062 J	0.00063 J	0.00067 J
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0002 U	0.00020 U	0.0002 U
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.001 U	0.0010 U	0.001 U
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.0076 J	0.011 J	0.013 J
Cyanide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE D.5

**GROUNDWATER DATA SUMMARY INORGANICS
FORMER PLAINWELL, INC MILL PROPERTY
PLAINWELL, MICHIGAN**

Sample Location		TW-6	TW-7	TW-8	TW-9
Sample Date		9/6/2006	9/6/2006	9/6/2006	9/6/2006
Sample Type					
	Limits				
Aluminum	mg/L	-	-	-	-
Antimony	mg/L	-	-	-	-
Arsenic	mg/L	0.001 U	0.0037	0.0022	0.0019
Barium	mg/L	-	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.00020 U	0.0002 U	0.00046	0.00053
Calcium	mg/L	-	-	-	-
Chromium Total	mg/L	0.0010 U	0.0010 U	0.001 U	0.001 U
Cobalt	mg/L	-	-	-	-
Copper	mg/L	0.00095 J	0.0044	0.026	0.022 ^c
Iron	mg/L	-	-	-	-
Lead	mg/L	0.00064 J	0.0034	0.0054 ^{ab}	0.021 ^{ab}
Magnesium	mg/L	-	-	-	-
Manganese	mg/L	-	-	-	-
Mercury	mg/L	0.0002 U	0.000037 J	0.00021	0.00069
Mercury	mg/L	-	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	-	-	-	-
Selenium	mg/L	0.00096 J	0.001 U	0.001 U	0.001 U
Silver	mg/L	-	-	-	-
Sodium	mg/L	-	-	-	-
Thallium	mg/L	-	-	-	-
Vanadium	mg/L	-	-	-	-
Zinc	mg/L	0.0065 J	0.011 J	0.05	0.18
Cyanide	mg/L	-	-	-	-